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A

TREATISE

ON

DIAMONDS and PEARLS.

IN WHICH

Their IMPORTANCE is considered:

AND

Plain RULES are exhibited for ascertaining the Value of both:

AND THE

True Method of manufacturing DIAMONDS.

By *DAVID JEFFRIES*,

JEWELLER.

The SECOND EDITION, with large IMPROVEMENTS.

LONDON:

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TO THE

KING.

SIR,

I Beg leave, with the profoundeſt humility, to dedicate the following treatiſe to your *Majeſty*, the patron of truth

and juſtice, and friend to the common intereſt of mankind, more particularly to that of your *Majeſty*'s ſubjects: In which your royal character ſhines with the brighteſt luſtre.

It contains rational and plain rules for eſtimating the value of Diamonds and Pearls under all circumſtances, and for manufacturing Diamonds to the greateſt perfection: Both which have hitherto been but very imperfectly underſtood. From hence, all property of this kind has been expoſed to the greateſt injury,

injury, by being ſubject to a capricious and indeterminate valuation; and the ſuperlative beauty of Diamonds has been much debaſed.

To countenance a work calculated to promote a general benefit, it is humbly apprehended, will not be deemed unworthy the condeſcenſion of a *Crowned Head*, as theſe Jewels conſtitute ſo large a part of publick wealth; and, as they are, and have been in paſt ages, the chief ornaments of great and diſtinguiſhed perſonages, in moſt parts of the world.

That the ſupreme Diſpoſer of all things may long preſerve your *Majeſty*, the guardian of the commerce and properties of theſe your kingdoms, and that you may continue to reign in the hearts of a grateful and loyal people, is the fervent prayer of,

May it pleaſe your Majeſty,

Your Majeſty's *moſt dutiful,*

And moſt faithful Subject,

David Jeffries.

TO THE

READER.

AS *the following Treatiſe is calculated to inform the world concerning the value of* Diamonds *and* Pearls; *the weights made uſe of relative thereto, are here previouſly explained, as the knowledge of them will be found neceſſary to the Publick. They agree the neareſt to* Troy-weight *of any other, and are commonly called carat weights*; 150 *carats make about an ounce of that weight.*

Carats are divided into halves, quarters, or grains; eighths, ſixteenths, and thirty-two parts.

The draughts of the ſizes of Brilliant *and* Roſe Diamonds, *exhibited in the plates, are teſts to prove the truth and defects of the manufacture of any* Diamond, *and will be found as neceſſary as ſcales and weights, in attaining to a right judgment of their value. To make the truth of this aſſertion appear more evident, it is here to be obſerved*; Firſt, *That either a* Brilliant *or* Roſe Diamond *may be wrought in ſuch a manner as to contain one-fourth, or even one-third, more weight than it ought to have, which neceſſarily injures the beauty of its form, and likewiſe injures its true ſpirit and luſtre*; *and, if*

if that over-weight be injudiciouſly valued, together with its due weight, the price will be thereby greatly heightened above its juſt value, more eſpecially in large Diamonds. *All which overweighted* Stones *will eaſily be diſcovered by the ſizes exhibited in the plates, which exactly ſhew the true expanſion of well wrought* Diamonds.

Secondly, *It is to be obſerved, that the ſizes before referred to will diſcover if any* Stones *do not carry their true ſubſtance. An important circumſtance to be regarded, inaſmuch as any degree of want thereof, neceſſarily leſſens the ſpirit and luſtre they would otherwiſe be poſſeſſed of. In both caſes, directions are given in the treatiſe, in what manner every ſuch* Stone *is*

to

to be valued, as well as all other well proportioned ones, according to their water, and ſeveral degrees of perfection, or imperfection, of what ſize or weight ſoever.

POSTSCRIPT.

THE price of this book, I hope, will not be thought too large, when the following matters are taken into conſideration.

Firſt, *That of its being calculated to ſettle the value of* Diamonds *and* Pearls, *on a rational and firm baſis; a circumſtance of no ſmall concern, inaſmuch as their worth has hitherto been rated by fancy and caprice, which has frequently*

frequently proved very injurious even to traders in them, as well as to others who have bought them for their use.

Next, *As the subject concerns only persons of rank and fortune, and those of the trade for whose use the book is principally designed, the sale of it is not like to be very large. To this may be added, that what it contains is the product of many years study, and difficult labour of various kinds, attended with an expence much beyond what can readily be imagined.*

And here I shall take leave to observe, that inasmuch as the Tables of the prices of Diamonds *and* Pearls *answer the same purposes in attaining to the knowledge of the value of these* Jewels, *as scales*

ſcales and weights, they may be conſidered in the ſame light ; and that the Diamond *ſizes may be depended on for their truth, they are all engraved by myſelf, not daring to truſt that performance to any one elſe ; which is likewiſe the caſe in reſpect to ſome other things, that I ſhall not here particularize ; all which have ingroſſed my thoughts and time to the neglect of my private concerns ; by that means I have greatly injured a fortune (not got by trade) that put me above entering on this work with any mean lucrative views ; and leaſt of all that of publiſhing for the ſake of the profit that might ariſe therefrom. On the contrary, my former circumſtances enabled, and my inclinations led me to engage in this attempt, in order to ſerve the publick,*

lick, and the Jewel *trade. And to my great ſatisfaction, I find the principles of the book begin already to operate; from whence it may be preſumed they will more and more, and that the world will experience their utility. That this was my original motive is a fact well known to ſome; and that I formerly intended to have publiſhed the matters contained in this treatiſe, without having any regard to the profit ariſing thereby. Theſe circumſtances, doubtleſs, will have their due weight in accounting for the price of the book.*

And now I think it my duty to mention, that whatever knowledge I may have acquired by applying my thoughts and time this way, I ſhall endeavour faithfully

fully to employ in any buſineſs that I may be honoured with in the Jewelling trade. This I have not ſpoke of in my former Edition, nor ſhould I now, if I were not countenanced in ſo doing by ſome perſons of rank, and many of my particular friends, both which have of late favoured me that way: And this leads me to hope for an increaſe thereof, which I flatter myſelf will not be found diſadvantageous to any that may engage me in their ſervice. In ſaying this I am not apprehenſive of having ſaid too much.

A

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An Explanation of ſome TECHNICAL TERMS *made uſe of in this Treatiſe, in alphabetical order.*

THE *Bezils* are the upper ſides and corners of the *Brilliant*, lying between the edge of the table and the girdle.

The *Collet* is the ſmall horizontal plane, or face, at the bottom of the *Brilliant*.

The *Crown* is the upper work of the roſe, which all centers in the point at the top, and is bounded by the horizontal ribs.

The *Facets* are ſmall triangular faces, or planes, both in *Brilliants* and *Roſes*. In *Brilliants* there are two ſorts, *ſkew* or *ſkill* facets, and *ſtar* facets. Skill-facets are divided into *upper* and *under*. Upper ſkill-facets are wrought on the lower part of the Bezil, and terminate in the girdle; under ſkill-facets are wrought on the pavilions, and terminate in the girdle; ſtar-facets are wrought on the upper part of the bezil, and terminate in the table.

The

The *Girdle* is the line which encompaſſes the Stone, parallel to the horizon; or, which determines the greateſt horizontal expanſion of the Stones.

Lozenges are common to *Brilliants* and *Roſes*. In *Brilliants* they are formed by the meeting of the ſkill and ſtar facets on the bezil: In *Roſes*, by the meeting of the facets in the horizontal ribs of the crown.

Pavilions are the under ſides and corners of the *Brilliants*, and lie between the girdle and the collet.

The *Ribs* are the lines, or ridges, which diſtinguiſh the ſeveral parts of the work, both of *Brilliants*, and *Roſes*.

The *Table* is the large horizontal plane, or face, at the top of the *Brilliant*.

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INTRODUCTION.

DIAMONDS, and Pearls being, of all Jewels, of the greateſt importance to this, and moſt nations of the world, juſtly demand the higheſt regard of any; inaſmuch as they conſtitute the largeſt ſhare of wealth of this kind, and are the chief ornaments of great and diſtinguiſhed perſonages: More eſpecially Diamonds, as being the moſt beautiful and valuable of all. On which account, as I have been above

thirty years a conſiderable trader in them, and a manufacturer of Diamonds, I have ſtudiouſly employed great part of my time in ſearch of rules to aſcertain the value of both under all circumſtances, whatever be their weight and magnitude; and likewiſe, for manufacturing Diamonds to the greateſt perfection. And apprehending that I have fully ſucceeded; for the promotion of the commerce, and for the benefit of the publick, I have exhibited, in this treatiſe, means by which the inquiſitive may attain to a right knowledge in theſe matters; and more eſpecially concerning thoſe from one carat weight, to thoſe of one hundred carats.

The plates of the ſizes of Diamonds, and the tables of the prizes of both, are extended no farther than to Diamonds and Pearls, of that weight: They

They might be carried on *ad infinitum*; and the rule of valuing will hold good, tho' they ſhould weigh as much as Governor *Pitt*'s Diamond, purchaſed by the Duke of *Orleans* for the preſent *French* King, which weighs 136 carats $\frac{3}{4}$, or as three others mentioned by Monſieur *Tavernier*, in the ſecond part of his voyages, *p.* 148, *Engliſh* tranſlation, *viz.* that of the Great Duke of *Tuſcany*, which weighs 139 carats $\frac{1}{2}$, or that in a merchant's hands, which weights 242 carats $\frac{1}{16}$, or that of the Great Mogul, which weighs 279 carats $\frac{5}{16}$.

If what is contained in this treatiſe be found true, it will confute the notion, that ſome Diamonds and Pearls are ineſtimable, on account of their extraordinary magnitude; which, to this time, prevails, upon the ſuppoſition that no methods can be found to

determine their value; and will likewiſe greatly contribute to ſupport the dignity of the diamond manufacture.

Of the Production of DIAMONDS, *and the Principle of valuing them.*

THAT rules may be given for the juſt valuing of Diamonds according to their increaſe in *ſize* and *weight*, is reaſonable to ſuppoſe, from this conſideration; that nature has produced in times paſt, as well as it does at preſent, Diamonds in the following manner; *viz.* a vaſt number of ſmall ones, and progreſſively a leſs number of larger; and that they promiſcuouſly inherit the ſame properties, and ſhare alike of perfection, and imperfection. This therefore is a ſufficient

ficient foundation for rules to be given for valuing them in proportion to their ſize and weight, which will be found hereafter exhibited; and if the uſe and application of them were conformable to the production of nature, the rules thus founded, and preſcribed, would never be interrupted: And therefore, if the humour of the world demands, at any time, more or leſs of any particular ſizes and weights than nature provides, the price obtruded thereby muſt be reckoned the *occaſional*, and not the *juſt* price, and complied with as ſuch; which happens to be the caſe at preſent, by the extraordinary uſe of ſmall Diamonds in the decorations now faſhionable in jewelling. And as the price of theſe ſmall Diamonds will always fluctuate by the alterations of faſhions, little regard

will be had in this treatiſe to any, under the weight of one carat.

It may be alſo obſerved, that the value of *rough Diamonds* from two, to three carats, and alſo of *poliſhed Diamonds* from one, to one and a half, do not correſpond with the rules hereafter laid down; the price at preſent being lower than what is aſſerted by the rules; which is acknowledged, and will remain ſo, as long as the humour prevails of ſupplying the place of Diamonds of that weight, by meanly ſetting ſmall Stones in a cluſter in their room, for the ſake of a ſhowy and flaſhy appearance, at a leſs price than Stones of theſe ſizes would admit of; by which means theſe ſizes are leſs uſed than formerly, and become cheaper (the production of nature being always the ſame) and from hence they are depreciated in their value;

lue; ſo that the preſent prices of theſe ſizes muſt alſo be reckoned the *occaſional*, and not the *juſt* price.

The rules are, nevertheleſs, juſt, uniform, and conſonant to nature; and therefore are here proper to be offered, in order to aſſiſt in coming at the true knowledge of the value of Diamonds of a higher worth, than ſuch as are liable to be affected in their price by the alteration of *faſhions* in jewelling.

The *principle*, or *rule* is, that the proportional increaſe, or value of Diamonds, is, as *the ſquare* of their *weight*, whether rough or manufactured. For the explanation whereof, an inſtance is firſt given in rough Diamonds; on which account it will be neceſſary to lay down a general price, which is ſuppoſed to be 2 *l. per* carat; meaning, the whole ſpecies,

good and bad blended together, which are worthy the expence of manufactury. For example, ſuppoſe the value of a rough Diamond of two carats, at the rate of 2 *l.* *per* carat, ſhould be required ; the rule is, firſt, to multiply 2 by 2, which makes 4, the ſquare of its weight ; then, multiply the product of 4 by 2 *l*, the price of one carat, that makes 8 *l.* which is the true value of a rough Diamond of 2 carats.

To make this rule applicable to *manufactured* Diamonds it will be neceſſary to aſcertain what *waſte*, or *loſs of weight*, will be ſuſtained in manufacturing them. And here it may be advanced as a matter of fact, that *half* the weight will be loſt; conſequently, doubling the weight of any manufactured Diamond, renders the rule of the ſame uſe to ſhew

their

their value. This loſs is to be underſtood to relate to the general manufactury of Brilliant, and Roſe Diamonds in the moſt perfect manner. To that end, rules are to be offered for a general practice in both kinds of manufactury; which, if conformed to, will be found to exhibit Diamonds in ſuch a manner, as to be productive of greater perfection, and ſaving of weight, than any other ſtandards of practice.

Of BRILLIANT DIAMONDS, *and the Method of manufacturing them.*

BRILLIANTS are firſt to be conſidered. And the manufactury of *a ſquare* one, is fixed on for the

the fundamental, and governing rule of practice; nature for the moſt part directing thereto, as it produces abundantly more apparent *ſix pointed* Stones, than Stones of any other form; and becauſe the ſame depth, or ſubſtance, and the ſame manner of proportioning that ſubſtance, which are eſſential in rendering a ſquare Brilliant compleat, are neceſſary in rendering a Brilliant of any other ſhape compleat; and more ſubſtance, or any other manner of, proportioning, will be found upon experience prejudicial to the beauty of their form, and the true dignity of their ſpirit and luſtre; compared with ſuch as are made conformable to the following rules.

The form of *a ſix pointed rough* Diamond is previouſly to be deſcribed; as the ſhape of it is not much known.

It

It is a figure compoſed of two ſquare pyramids, joined at their baſes, and which form an out-line of a true ſquare. The whole figure is compoſed of eight triangular faces, or planes; four above the baſe, and four below it; all meeting in two points, one at top, the other at bottom; terminating in the poles of the axis, or line paſſing through the centre of the Stone from top to bottom. Some Stones are found to anſwer this figure very nearly. To make a compleat ſquare Brilliant from ſuch a Stone, if it be not exactly true by nature, it muſt be made ſo by art.

The firſt thing therefore to be done, is to reduce that part, repreſenting the baſe of the two pyramids, to an exact ſquare, which forms what is called *the girdle* of the Stone; and then, work by the ſquare from the girdle, which

will produce the two points of the axis; and, if it be truly executed, the length of the axis from point to point, will be equal to the breadth of the ſquare from ſide to ſide. A draught of a ſide view of ſuch a Stone will be found in the firſt plate, N°. 1.

The next thing to be done, is to produce *the Table* and *Collet*. In order to which, divide the block into eighteen parts from top to bottom; and then take away from the upper part $\frac{5}{18}$, and from the lower part $\frac{1}{18}$. This gives the upper part, or table ſide, $\frac{4}{18}$ above the girdle, which is $\frac{2}{3}$ of the remaining ſubſtance; and the lower, or collet ſide, $\frac{8}{18}$ or $\frac{2}{3}$; only 12 of the original 18 parts being left in depth. And thus the table and collet are formed; which will be found to bear this proportion to each other, *viz.* the collet will be one fifth of the breadth

breadth of the table. In this ſtate it is *a compleat ſquare table Diamond.*

Its different parts are denoted by the letters *a*, *b*, *c*, *d*, *e*.----*a*, ſhews what is uſually called *the table* of the Stone, which is an horizontal plane at the top; *b*, the upper ſides or *biſils*; *c*, *the girdle*, which ſhews its expanſion; *d*, the under ſides or *pavilions*; *e*, *the collet*, which is a ſmall horizontal plane at the bottom. The prick'd lines above the table, and thoſe below the collet, ſhew what has been taken away. A ſide view of one will be found in plate I. N°. 2.

Note, This ſpecies of manufacture has been exhibited time out of mind; and the Brilliant, which is an improvement upon it, has been introduced within the laſt century; as will appear to thoſe who ſhall give themſelves the trouble of an enquiry. But this not being eſſential to the preſent under-

taking,

taking, (which will be purſued with the utmoſt brevity) an hiſtorical account of theſe matters is omitted.

This is the foundation of *a ſquare Brilliant*; and, in order to render it *a perfect Brilliant*, each *corner* muſt be ſhortened $\frac{1}{20}$th part of its diagonal; and then the *corner ribs* of the upper ſides muſt be flattened, or run towards the centre of the table $\frac{1}{6}$ leſs than the ſides; and the lower part, which terminates in the girdle, muſt be $\frac{1}{8}$ of one ſide of the girdle; and each corner rib of the under ſides, muſt be flattened at the top, to anſwer the above flattening at the girdle; and at the bottom $\frac{1}{4}$ of each ſide of the collet. A ſide view of one will be found in plate I. N°. 3.

The parts of the ſmall work which compleats it a Brilliant, are called *ſtar* and *skill faſſets*, and are of a triangular

gular ſhape. Thoſe which join to the table are *the ſtar* faſſets, thoſe which join to the girdle *the skill* faſſets. Both of theſe partake equally of the depth of the upper ſides from the table to the girdle, and meet in the middle of each ſide of the table and girdle, as alſo at the corners; and thus they produce regular *Lozenges* on the four upper ſides and corners of the ſtone. The *triangular* faſſets on the under ſides joining to the girdle, muſt be half as deep again as the above faſſets, to anſwer to the collet part; that is to ſay, in the proportion of three to two. A draught of a Brilliant rendered compleat, will be found in plate I. N°. 4.

Under the before - mentioned draughts, are repreſented four compleat Brilliants in an horizontal view, by double draughts, weighing 36 carats

ſats each. N°. 5. is *a ſquare*, N°. 6. *a round*, N°. 7. *an oval*, N°. 8. *a drop*. The left-hand draughts regard their upper parts, and thoſe on the right their under parts, which are ſuppoſed to be divided at their girdles. They are thus ſeparately repreſented, the better to ſhow their whole work, and in what manner it ſhould lie; and likewiſe their ſize, or expanſion, and the ſize of their tables and collets.

Note, Their perpendicular depths from table to collet, are ſhewn by the length of the *bars* placed under each double draught. The *octagon* in the middle of the left-hand draught of N°. 5. is the table, which is an horiontal plane, or face, at the top, and is denoted by the letter *a*. The triangular faſſets adjoining to the table are *ſtar faſſets*, and are denoted by the letter *b*. Thoſe adjoining

adjoining to the extream part, or out-lines, are *skill faſſets*, and are noted by the letter *c*. Theſe, meeting in the middle of the upper ſides, and corners of the ſtone, form figures of a *lozenge* ſhape round the upper ſides and corners of the Stone, and are denoted by the letter *d*. The *out-lines* of this, and that of the right-hand draught, are the girdle of the Stone, and are denoted by the letter *e*. The triangular faſſets adjoining to the out-lines of the right-hand draughts are the *under skill faſſets*, and are denoted by the letter *f*. The *lower ſides* are denoted by the letter *g*. The octagon in the middle is the *collet*, which is denoted by the letter *h* ; and is an horizontal plane, or face, at the bottom of the Stone. This deſcription ſerves as an explanation of the other three double draughts. All lineswithin the out-lines of the draughts,

are called *ribs* in Diamonds. Theſe draughts, with theſe explanations, will always be found of uſe to give a right idea of *a Brilliant* Diamond. In Plate VI, there is a draught of an inſtrument uſeful for examining the ſize and depth of any Diamond, called a *prover*.

Of the ſizes or expanſion of BRILLIANTS.

IN Plates II, III, IV, V, is exhibited *a liſt* of the draughts of the horizontal repreſentation of 55 *ſquare* Brilliants, from one carat weight, to an hundred carats, ranged in a progreſſive order, according to their increaſe in ſize, and weight; which are ſo many teſts to prove the truth, or error, of the manufacture of any Brilliant

Diamond. Here it is to be obſerved, that their *depths* are expreſſed by the length of the bars placed under each draught; and *the ſize* of their *collets*, by the octagons under the bars, in order more diſtinctly to diſcern their ſeveral parts. The numerical figures on the left-hand of each draught, regard their *number*; thoſe on the right-hand, their *weight*.

The reaſon why the number of ſizes is not more multiplied, is, leſt the progreſſion of increaſe in ſize ſhould not be diſcernable; and, by that means ſhould create too great a difficulty in adjuſting the degrees in which any ſtone departs from truth. And this the rather, on account of other ſtones differing in their ſhapes at the *table*, *girdle*, and *collet*, from thoſe of *ſquare Brilliants*; which increaſes, in ſome meaſure, the difficulty of deter-

mining any difference to a great nicety; the uſe of the ſizes being to expoſe any conſiderable, or groſs departure from truth, and to prevent the carrying on the *baſe* and *heavy* manufacture, which has of late prevailed in an extravagant degree, to the great diſparagement of the Diamond ſpecies; and has contributed, likewiſe, to a great deception, and impoſition on the publick. It may with truth be ſaid, regarding *ſmall Stones* (which means Stones under the weight of a carat) that, in general, they are ſo ill made as to be void of their true beauty in all reſpects; and, by reaſon of their cloſeneſs, or want of due expanſion, they will not fill up, by one fourth, the ſame ſpace as well made Stones do in a piece of jewelling work. Conſequently, they are ſo much leſs in appearance; and, as they retain one fourth

fourth more weight, than well made Stones of the ſame expanſion; and, as they are wrought for one third, or half the price, the vender of ſuch can afford to ſell them at leaſt 30 *per cent.* leſs, than he can afford to ſell well made Stones.

The truth of theſe matters will evidently appear by future enquiry and obſervation.

Of the Uſe of the BRILLIANT SIZES *in diſcovering ill wrought ones.*

HERE it may be proper to ſhow, how far this ill manner of working before-mentioned may debaſe Diamonds of larger ſizes, and how much it may contribute to the deception both of buyer and ſeller. To that end will

be ſhewn the uſe of the *ſizes* in diſcovering a *well*, or an *ill* made, Brilliant. For example, ſuppoſe two ſtones of *ſix carats* weight each, the one a well made, the other an ill made Stone; the firſt will tally in all circumſtances with N°. 20. of ſix carats weight; and the laſt may be *loaded* with *undue* ſubſtance, by which means its expanſion may not exceed one of five, or four carats weight. If any Brilliant be ſo circumſtanced, it is to be valued only as it agrees with any of the ſame expanſion in the liſt, allowing for the expence of rectifying; becauſe, whatever ſubſtance, or weight, it carries beyond what its ſize demands, deſtroys, in proportion to ſuch exceſs, the beauty of its make, and its true ſpirit and luſtre. And here may be ſeen, the difference it would make to a purchaſer, who may be induced to give

give the price, that a well made Stone of ſix carats weight demands, for one whoſe expanſion may not exceed that of five, or four carats weight. For example, a Stone of ſix carats weight, by the rule before laid down, is worth - - - - - - *L* 288 0 0

One of five carats - - 200 0 0

One of four carats - - 128 0 0

If the difference be ſo great in the inſtance given, how much greater muſt it be in regard to Stones of larger weights? And as that may be eaſily known by the ſame method of enquiry, no other inſtance need be here given.

Since then, ſo great a deception may ariſe from the ill manufacture of Diamonds, the great uſe of the ſizes in diſcovering ſuch, evidently appears. And, as the attaining a right knowledge of the *true make* of Diamonds,

will be found, of all other circumſtances, the moſt neceſſary in arriving at their *value*; ſome remarks are here made, by which the reader is informed in what manner the *defects* of ill made Brilliant Diamonds will appear. To that end, an inſtance is given of a Stone of ſix carats weight, which is but of the expanſion of one of five carats. It will partake more, or leſs, of all the following defects. Either it will be *deeper* than a Stone of five carats; or, if not deeper, its *table* and *collet* will be *larger*, and that will render it *blocky*, by the ſides being too upright; or, it will be left too thick at the girdle, before the *ſmall* work (which means the *ſtar*, and *skill faſſets*) is performed; and, if ſuch thickneſs be ſufficiently reduced; that is, ſo as to be conſiſtent with ſafety in ſetting, the skill faſſets will be executed in an *obtuſe*, or *blunt* manner,

manner, and that will cauſe an undue *ſwelling* in the Stone; or it may, after all, be left too thick at the girdle. A Stone thus made will unavoidably be of an ill form, and be rendered lifeleſs, and dull; which cannot be rectified without the loſs of its ſuperabounding weight, which will reduce it to five carats; and therefore it is to be valued only as *one of* five carats. And in caſe a Stone, weighing ſix carats, ſhould tally only in ſize with one of four carats, theſe defects will be proportionably increaſed, to the ſtill greater prejudice of the Stone; and therefore it will be purchaſing deformity at the price of beauty.

Of

Of the method of manufacturing, and valuing, SPREAD BRILLIANTS.

CONCLUDING it unneceſſary to add any thing farther on the head of *full ſubſtanced*, and *overweighted* Brilliants; the next thing that requires notice, is, the method of manufacturing and eſtimating *ſpread Brilliants*. As to the method of making them; to do it in the moſt compleat manner, they muſt be proportioned, as in the caſe of full ſubſtanced ones, $\frac{1}{3}$ at the *upper*, or *table* ſide, and $\frac{2}{3}$ at the *under*, or *collet* ſide; and whatever be the diameter of their *tables*, that of their *collets* muſt be $\frac{1}{5}$ thereof. The ſmall work is to be performed in the ſame manner as is practiſed in full ſubſtanced Stones. This is all that is neceſſary

ceſſary to be taken notice of, in regard to their *manufacture.* But, previous to the method of *valuing* them, the following obſervation may be ſuggeſted;---that, as ſufficient reaſons have been given to make it appear, that Brilliants may be injured in their ſhape, and true beauty, by a ſuperabounding of weight; ſo, on the contrary, it will appear, that if they do not carry their true, or full ſubſtance, they will be injured in both theſe circumſtances; by reflecting on the conſequence of rendering them very thin or ſpread; which has frequently been carried to ſo great an *exceſs*, as to deprive them of the benefit of workmanſhip; for the work muſt neceſſarily be ſo flat, as to cauſe ſuch Stones to be faint, and languid in their luſtre, and thereby leſs worthy of eſteem in proportion to ſuch exceſs. Notwithſtanding which, it will be found,

found, that in paſt times, inſtead of valuing THE WEIGHT of ſuch wrought Diamonds, *leſs* on that account, it has been valued *the more*; merely for the ſake of their making a ſhowy appearance. To which may be added, that all ſuch Stones are more liable to receive injury by blows, falls, or hard preſſure, than full ſubſtanced ones.

Here it is neceſſary to explain what is meant by *exceſs*, becauſe it muſt be allowed, that ſome Stones are ſo formed by nature, as not to be capable of being manufactured by art into any other than ſpread Brilliants, without too great a waſte of the Diamond ſpecies. Therefore, it may be laid down as a fit rule, to include under that denomination (*viz.* of exceſs) all ſpread Brilliants expanded beyond the ſize of full ſubſtanced ones of double their weight; and ſuch

are

are to be valued only as they may be ſuppoſed to weigh, if reduced to this ſtandard.

It remains to ſhow, in what manner *ſpread Stones* are to be *valued*; which is as full ſubſtanced ones are of the ſame weight, ſimilar in all other circumſtances. And they are to be ſo valued, on account of their expanſion to the degree above-mentioned; for it muſt be admitted, that the ſpaciouſneſs of their appearance to that degree, counter-balances the deficiency of luſtre, owing to their want of ſubſtance. And this is all that can be offered in juſtification of ſo valuing them, which carries the appearance of partiality rather in their favour, than diſfavour; eſpecially in regard to ſuch as are of the greateſt expanſion within the limits mentioned; conſidering, that full

ſubſtanced

ſubſtanced Stones have all the advantages that both nature and art can beſtow.

Of Rose Diamonds.

HERE it is to be obſerved, that nothing can more perpetuate Rose Diamonds in the eſteem they have hitherto had in the world, than maintaining the truth of their manufacture. Nor was it ever more fit to be recommended than at preſent, on account of the corrupt taſte that has of late prevailed, in converting *Roſe Diamonds* into *Brilliants*, under pretence of rendering them, by that means, a more beautiful, and excellent Jewel. This has frequently been done, to the great prejudice of their value, by leſſening

ſening the weight, and expanſion they bore in their preceding ſtate; and they have frequently been more injudiciouſly manufactured in the *new* ſpecies, than they were in the *old*. This will appear to have been often the caſe, by the *upper part* of ſuch ſtones not carrying a true proportion of the ſubſtance of the Stone: Which of courſe renders the upper part flat, and the table of an immoderate extent; ſo that the *ſide work*, or bezil, appears but as a narrow border. This method of working has been introduced for the ſake of preſerving the expanſion, and weight of ſuch Stones, which unavoidably would be more reduced, if they were allowed their true proportion of top. Which reduction both of their weight and expanſion will appear ever neceſſary to be done, to render ſuch Stones

compleat

compleat ſpread Brilliants; for ſuch only are they capable of being manufactured into.

Of the impropriety of transforming well wrought ROSE DIAMONDS, *into* BRILLIANTS.

FROM what has been obſerved, it will appear, that no Roſe Diamonds are proper ſubjects of this metamorphoſis, but ſuch only as are *over weighted*; and of ſuch, thoſe are the moſt proper ſubjects of the metamorphoſis which have the baſe, or girdle, too thick. The over weight will be diſcovered by the *ſizes* hereafter mentioned. To convert any Roſe Diamond, not ſo circumſtanced, to a Brilliant, will be ſhown to be a practice not

not founded in reaſon, and which carries in it the appearance of an attempt to depreciate this antient and ſpacious manufacture of Diamonds, in order to exalt a new one beyond its real and true merit.

For it will be found, that a compleat Roſe Diamond will be more *expanded* than a compleat Brilliant of the ſame weight, and proportionably ſo in regard to ſpread Stones; therefore, as it has been ſhewn, that an increaſe of expanſion is ſubſtituted in the room of depth, or ſubſtance, in Brilliants, the ſame is to be admitted in regard to Roſe Diamonds, provided their expanſion does not exceed the limits preſcribed in the caſe of ſpread Brilliants.

And if it be admitted, as ſome have aſſerted, that there is a ſuperior excellency in Brilliants; what muſt be the conſequence, but that Roſe Diamonds

muſt ſink in their value, to the great prejudice of the moſt noble and antient Families, who are greatly poſſeſſed of them, as being a more antient Jewel than Brilliants? But, on the contrary, it will appear that Roſe Diamonds, when truly manufactured, are not inferior to Brilliants, all circumſtances conſidered.

Of the Form of a Rose Diamond.

SOME obſervations are now to be made concerning their *form*. Their being called *Roſe* Diamonds, probably took its riſe from their ſhape, in ſome meaſure reſembling that of a roſe-bud before it expands its leaves. They appear in a kind of ſemi-globular form, only terminating in a point at

the top. Which form, and likewiſe the work, or facets thereof, covering *the whole face* of the Stone, being more equal, exhibit a more even diſplay of beauty, than a Brilliant, whoſe luſtre is derived from the *angles*, or facets, of *the ſides* only. And as their angles are larger than thoſe of a Brilliant, they throw forth more copious rays, the luſtre of which appears to be equivalent to the ſparkling vigour of the ſmaller, and more numerous angles of a Brilliant.

The fitneſs of aſſerting the dignity of the Roſe Diamond manufacture having been ſhewn, the manner in which it is to be performed, is next to be pointed out. But firſt, it is neceſſary to lay down what is requiſite to conſtitute a compleat Roſe Diamond. A *round*, or *circular* Stone is found the fitteſt for that purpoſe ;

becauſe its form is the moſt beautiful, and productive of more vigour than any other ſhaped Stone; which ariſes from its admitting of more equal, and better connected faſſets, than other ſhaped Stones will allow of. And for this farther reaſon, that the ſame ſubſtance, and manner of proportioning, which renders them moſt compleat, will render Stones of *any other ſhape* as beautiful as their forms will admit. The right ſubſtance, proportions, and maufacture of a circular Roſe Diamond are as follow.

Of the Manufacture of a Rose Diamond.

THE depth of the Stone from the baſe to the point, muſt be half the breadth of the diameter of the baſe

baſe of the Stone; and the diameter of the crown muſt be $\frac{1}{5}$ of the diameter of the baſe; and the perpendicular from the baſe to the crown muſt be $\frac{3}{5}$ of the depth of the Stone; and then, the lozenges, which appear in all circular Roſe Diamonds, will be equally divided by the ribs that form the crown. The upper angles, or facets, will terminate in the extream point of the Stone, and the lower in the baſe or girdle.

In the 6th plate, there are four draughts of Roſe Diamonds manufactured by the before-mentioned rules. The firſt is *a ſide* view of a circular ſhape. The ſecond, *an horizontal* view of the ſame. The third, *an oval.* The fourth, *a drop.* Their ſeveral parts are explained by the firſt and ſecond draughts. As to the firſt, *a*, is the *point*; *b*, the *crown*; *c*, the *girdle.* The upper triangles, or faſſets,

ſhow half the work of the crown; the under triangles, half the ſide. As to the ſecond draught, the common interſection of the ſix croſs lines meeting in the centre of the draught, is the *point*; the lines that form the hexagon, and the triangles within it, compoſe the *crown*; the triangles without the hexagon compoſe the *ſides*; the out-lines ſhow the *girdle*. All lines in the draughts are called *ribs* in Diamonds, except what expreſs the girdles. Theſe draughts are repreſentations of Roſe Diamonds of 36 carats weight each, and may be of perpetual uſe to give a right idea of their proper figures, and workmanſhip.

Of

Of the Sizes of ROSE DIAMONDS, *and their Uſe in diſcovering ill wrought ones.*

IN the following Plates VII, VIII, IX, X, is exhibited a liſt of 55 draughts of circular Roſe Diamonds from one carat weight, to an hundred carats, which are ſo many teſts to prove the *truth*, or *defects*, of any manufactured Stone of that kind. Their uſe, as in the caſe of Brilliants, will be ſhown in proving a Roſe Diamond to be either truly made, or not. For example, ſuppoſe one of five carats weight; if it be truly made, it will be as expanded at the baſe, or girdle, as N°. 18. of five carats, and the ſize of the crown will alſo agree therewith; its depth will be likewiſe half

its diameter, or breadth. But if it be baſely made, and left *loaded* with undue weight, its expanſion at the baſe may not exceed one of above three, or four carats weight. Such a Stone, according to the degree in which it falls ſhort of its juſt ſize, will partake of ſome, or all the following defects. Either its depth, from the baſe to the point, will *exceed* the rule; or, tho' it ſhould not be too deep, its ſides below the crown may be *too upright*, which will be diſcovered by the crown's exceeding its proper extent, and that will conſequently cauſe a flatneſs from the crown to the point; or the crown may be ſituated *too high*; if ſo, the ſize of the crown may not exceed its juſt extent, but then it will occaſion an increaſed flatneſs of the crown, and produce an extravagant depth below it; or the girdle may be left *too thick*. If

any

any Roſe Diamond is made after this manner, it will, according to the degree in which it is thus defective, be injured in its ſhape, ſpirit, and luſtre; and therefore is not to be valued by its weight, but only as it agrees in ſize with any in the liſt; for the ſame reaſons as are given in the like caſe of Brilliants.

Of the Method of manufacturing, and valuing, SPREAD ROSE DIAMONDS.

THE next thing to be regarded, is the manner of making, and valuing, *ſpread Roſe Diamonds.* As to the manner of making them; what is neceſſary to be obſerved, is, that their crowns muſt be of ſuch an extent, and placed

placed in ſuch a ſituation, as to prevent any diſproportionate flatneſs in the crown, and unequal diviſion of the lozenges: And, that they be made as thin at the girdle as is conſiſtent with ſafety in ſetting them. This is all that is neceſſary to be obſerved on that head. As to valuing them; the ſame method is to be obſerved, as in the caſe of ſpread Brilliants in all reſpects.

Note, This article of making *ſpread Roſe* Diamonds, is as neceſſary to the ſame ends and purpoſes, as the manufacture of *ſpread Brilliants*; inaſmuch as they occupy thinner matter than Brilliants can.

From what has been ſaid of Roſe Diamonds, it ſeems evident, taking in all circumſtances, that they deſerve as much eſteem and regard as Brilliants, and are intitled, weight for weight, to an equal value: Some perſons

ſons with us, and thoſe of great reputation for knowledge in Diamonds, prefer the former to the latter; but, although this be the opinion of particular perſons, it ſeems no better grounded than that of others, in giving Brilliants the preference; for the ſame conſequence muſt follow from thence to the poſſeſſors of Brilliants, as has been mentioned concerning the poſſeſſors of Roſe Diamonds; which was, that if Brilliant Diamonds were preferred to Roſe Diamonds, theſe latter muſt ſink in their value; ſo, on the contrary, if Roſe Diamonds are preferred, Brilliants muſt ſink in their value; and if they are equally eſteemed and valued, as appears they ought to be, it will conduce to the ſaving of weight, that a bias to either mode of working will unavoidably occaſion.

The

The next thing that falls under conſideration, is the methods of valuing Diamonds.

The firſt Method of valuing WROUGHT DIAMONDS *in conjunction with* ROUGH DIAMONDS, *out of which they are ſuppoſed to be wrought.*

AN example is here given to ſhow in what manner the value of a manufactured, or wrought Diamond, of one carat, is to be found, upon the principle advanced, ſuppoſing rough Diamonds to be valued at two pounds *per* carat.

The weight of ſuch a ſtone muſt be doubled (on account of half being ſuppoſed to be loſt in working it) which

which is conſidered as its original weight, making two carats; then multiply that weight into itſelf, which ſquares it, and makes 4; laſtly, multiply the 4 by 2, that produces eight pounds, which is the value of a Stone of one carat wrought or poliſhed, and is equal to the value of the rough Diamond of two carats, out of which it is ſuppoſed to be made. This ſingle inſtance is here given to ſhow the value of rough Diamonds in the price of wrought ones; and as a farther explanation of the rule of valuing them, and previous to the offering any other, it is to be obſerved, that although two pounds is laid down as the general price of rough Diamonds, it is nevertheleſs to be underſtood, that rough Diamonds differ in their value according to their different degrees of perfection or imperfection, and

according

according to the loſs of weight they may be ſuppoſed to ſuſtain in being truly wrought ; as it is well known, that ſome will loſe abundantly more than others, ariſing from their ill forms and other defects that may attend them, which defects are ſo numerous and difficult to be expreſſed, that what may be ſaid of them would probably not be underſtood but by the moſt experienced traders and manufacturers of them. This conſideration and that of its being but of little concern to the publick, prevents my ſaying any thing more relating thereto.

In farther explaining the principle of valuing wrought Diamonds, three other inſtances, beſides that already given, will be offered, to ſhew the operation of the principle in coming at the value of wrought Diamonds, which it is judged will be ſufficient in all other

caſes

caſes in this way of proceeding. After that will be offered three more of the ſame weight, in a different manner of proceeding, but to the ſame end.

Here it may be proper to hint, that all the inſtances that will be given, are founded upon the price of rough Diamonds in general being put at two pounds *per* carat, *viz.* good and bad blended together, as has been before noticed; ſo that two pounds is the price of the middle ſort only: And it is alſo to be remembered, that in manufacturing, half the weight is ſuppoſed to be waſted. And as miſtakes may be made in calculating the value of particular Diamonds, in the manners hereafter preſcribed, it is here noted, that the prices of Diamonds, from one of one carat to one of an hundred carats, of this degree of goodneſs, are contained in Plates XI, XII, XIII, XIV,

XIV, XV, XVI ; which will prove the truth or falſity of any calculation : And it is alſo to be obſerved, that the expence of manufacture, or workmanſhip, is excluded in all the inſtances that will be given on this occaſion, the reaſons of which will hereafter appear.

Now follow the three other inſtances propoſed, to explain this firſt method of finding the value of any wrought Diamonds.

The firſt INSTANCE.

To find the value of one of five carats weight, the weight muſt be doubled, on account of half being ſuppoſed loſt in working it ; that replaces its original weight, which makes ten carats; then multiply 10 by 10, that

ſquares

ſquares the weight, and makes 100 carats; and, laſtly, the 100 muſt be multiplied by 2 pounds, the price of one carat; that produces 200 pounds, and is the value of a wrought Stone of five carats, and the price of the Diamond when rough.

EXAMPLE.

	10 Carats
Multiplied by	10 Pounds
Makes	100
Multiplied by	2 Pounds
Makes	200 Pounds.

Second INSTANCE.

To find the value of one of five carats $\frac{1}{8}$, the weight muſt be doubled, that makes 10 $\frac{1}{4}$; next multiply that

weight by 4, to bring it into fourths, or grains, which makes 41 ; then multiply 41 by 41, that makes 1681, the ſquare of the weight in ſixteenths ; therefore divide the 1681 by 16, that brings it again into carats, and makes 105 carats $\frac{1}{16}$; which multiplied by 2 pounds produces 210*l.* 2*s.* 6*d.* and is the value of the Stone, rough or wrought.

EXAMPLE.

Carats
10 $\frac{1}{4}$
4

41
41

41
164

Carats
16) 1681 (105 $\frac{1}{16}$
2

£. 210 2 6

Third

Third INSTANCE.

To find the value of one of five carats $\frac{1}{4}$; the weight doubled is 10 carats $\frac{1}{2}$; reduce that weight into grains, by multiplying it by 4, that makes 42; then multiplying 42 by 42, that makes 1764, the ſquare of the weight in ſixteenths; which divide by 16, that brings them again into carats, and makes 110 carats and $\frac{4}{16}$; which multiply by 2*l.* that produces 220*l.* 10*s.* and is the value of the ſtone, rough or wrought.

EXAMPLE.

10 $\frac{1}{2}$
4
42
42
84
168

Carats

16) 1764 (110 $\frac{4}{16}$

2

£. 220 · 10

The SECOND METHOD *of valuing* WROUGHT DIAMONDS, *in Conjunction with the* ROUGH DIAMONDS, *out of which they are ſuppoſed to be wrought.*

Firſt INSTANCE.

TO find the value of a Diamond of five carats weight, as in the foregoing caſes, ſo in this, the weight muſt be doubled ; that makes 10 carats. As a rough Diamond of one carat is valued at two pounds, every carat in this Stone accumulates ten times that value ; and ſo every carat in this ſtone is to be valued at twenty pounds ; therefore multiply 10 carats by 20 pounds, that will

will produce 200 pounds, and is the value of the Stone, rough or wrought.

EXAMPLE.

	10 Carats
Multiplied by	20
Makes the Total	200 Pounds.

Second INSTANCE.

To find the value of one of five carats ; the weight doubled makes 10 carats $\frac{1}{4}$; next reckon that weight in the foregoing manner, that makes every carat in this Stone worth twenty pounds, ten ſhillings: So firſt multiply 10 carats by 20 pounds, that makes 200 pounds; then multiply 10 carats by 10 ſhillings, that makes

100 ſhillings, or 5 pounds; next add the value of a fourth of a carat at the rate of 20*l.* 10*s.* that makes 5*l.* 2*s.* 6*d.* laſtly, caſt up theſe three ſums, the total will be 210*l.* 2*s.* 6*d.* and is the value of the ſtone, rough or wrought.

EXAMPLE.

	10	Carats
Multiplied by	20	Pounds
Makes	200	Pounds
10 Cts. mult. by 10*s.* makes	5	
The Value of $\frac{1}{4}$ of a Carat at 20*l.* 10*s.* is	5 2 6	
Makes the Total	£. 210 2 6	

Third INSTANCE.

To find the value of one of five carats $\frac{1}{4}$; the weight doubled makes ten

ten carats ½; reckon that weight as in the two other cafes, that makes every carat in this Stone worth 21 pounds: So multiply 10 carats by 21 pounds, that makes 210*l.* then add the value of the half carat at 21 *per* carat, that makes 10*l.* 10*s.* laftly, add the two fums together, the total will be 220*l.* 10*s.* and is the value of the Stone, rough or wrought.

EXAMPLE.

	10 Carats
Multiplied by	21
Makes	210
The Value of the ½ Carat added, which is	10 10
Makes the Total	220 10

The inſtances that have been given of *two methods*, for finding the value of *wrought Diamonds*, as they ſtand connected with the *rough* (out of which they are ſuppoſed to be made) it is apprehended, are a ſufficient explanation of the principle for valuing *rough* and *wrought Diamonds*; and prove its being founded on reaſon.

Of the Method of valuing WROUGHT DIAMONDS, *excluſive of any Regard to* ROUGH DIAMONDS.

AS inſtances have been given of two different methods of attaining the value of wrought Diamonds, in which caſes the value of rough Diamonds of double their weights

weights have been jointly conſidered, they being ſuppoſed to be made from ſuch rough Diamonds; three inſtances of manufactured Diamonds, of the ſame weights, will be now offered, to ſhew in what manner their value may be found, excluſive of any regard to rough Diamonds: And as the laſt method appears the ſhorteſt, and moſt eaſy to be underſtood, that method will be made uſe of on this occaſion.

This is to be known by applying the price they bear manufactured, which has been ſhewn, *viz.* that as rough Diamonds are valued at two pounds *per* carat, a wrought Diamond of one carat is worth eight pounds; ſo to find the value of a Stone of that degree of goodneſs, whatever number of carats are contained in ſuch a Diamond, each is to be valued at eight pounds; and whatever

ever ſum they make, muſt be multiplied by the weight of the Diamond.

The inſtances are as follow.

Firſt INSTANCE.

To find the value of ſuch a Diamond of five carats weight, reckon every carat at eight pounds; then multiply 5 carats by 8 pounds, that makes 40 pounds; ſo every carat is to be valued at 40 pounds; then multiply 5 by 40, that produces 200*l.* and is the value of ſuch a Diamond.

EXAMPLE.

	5 Carats
Multiplied by	40 Pounds
Makes the Total	200

Second

Second INSTANCE.

To find the value of one of five carats $\frac{1}{8}$, at the rate of 8 pounds *per* carat; multiply 5 by 1, that makes 40; then add to that the value of $\frac{1}{8}$ of eight pounds, that is one pound; so the value of every carat in this Stone is 41 pounds; then multiply 5 by 41, that makes 205 pounds; next add the value of $\frac{1}{8}$ of 41 pounds, that makes 5*l.* 2*s.* 6*d.* These two sums cast up produce 210*l.* 2*s.* 6*d.* and is the value of the Diamond.

EXAMPLE.

	5	Carats
Multiply by	41	
Makes	205	
To which is to be added the Value of $\frac{1}{8}$ of 41*l.* which is	5 2 6	
Makes the Total	£. 210 2 6	

Third

Third INSTANCE.

One of five carats $\frac{1}{4}$, the value of each carat is 42 pounds; multiply 5 by 42, that makes 210 Pounds

Then add the value of $\frac{1}{4}$ of 42, which is 10 10

Makes the Total £. 220 10

Of the higheſt and loweſt Price of ROUGH *and* POLISHED DIAMONDS.

HAVING explained the different methods of finding the value of rough and wrought Diamonds, of the middle ſort, the firſt being rated at two pounds *per* carat, the

the ſecond at eight pounds; as rough and poliſhed Diamonds may be of a higher and lower value, it remains to ſhew what may be the higheſt and loweſt of each.

Firſt, I ſhall ſpeak of rough Diamonds, and ſhall ſuppoſe three prices; for inſtance, one pound, two pounds, three pounds; the middle being two pounds, there appears an advance of one pound above the middle price, and a fall of one pound below; which is a deviation of fifty *per cent.* each way, and makes the worſt ſort be but $\frac{1}{3}$ the value of the fineſt.

That the two extreme prices naturally proceed from that of the middle price, I ſhall endeavour to prove; and in order thereto, I ſhall firſt ſhew, that no rough Diamond, which is not worth one pound *per* carat, ought to be manufactured; becauſe all that are

of

of leſs value muſt be very defective, carrying many, or all of the following blemiſhes, fouls, or ſtains, ſpecks, flaws, being veiny, cragged, ill-formed, and of an ill-colour; which, conſequently, muſt obſtruct and defeat the purpoſes of manufacture; for with all that art can do, they will be void of luſtre, which will ſink them below the rank of a jewel.

Next, it is to be obſerved, that all under that value will ſell for as much, to be uſed in cutting or forming the better ſort, as any one can afford to give for them, with the view of manufacturing them; for the expence of workmanſhip muſt be the ſame as for better Stones, if well done; and if not well done, it will add to the other defects; and the loſs of weight muſt be greater than what attends better Stones, by its being frequently neceſſary to diſcharge or leſſen the defects before

before mentioned : Indeed, when a Stone of a very large ſize falls in the way, it may be thought worth the expence of working, as its ſize may recommend it, theſe being rarely to be met with, but not as ornamental to any thing ; and ſuch may be valued below four pounds *per* carat, as the buyer and ſeller may agree on.

As it cannot but appear, that no rough Diamond ought to be wrought that is not worth one pound *per* carat, this muſt be allowed the loweſt price of rough Diamonds, worthy of manufacture, which, as has been obſerved, is half the value of the middle price ; ſo allowing as much advance above it, makes the price of the fineſt rough Diamonds worth three pounds *per* carat.

This being admitted, it ſhews, that manufactured Diamonds, of the worſt ſort, are worth four pounds *per* carat,

and the fineſt twelve pounds *per* carat; and this, probably, will be thought ſcope ſufficient to employ ſpeculation and judgment; and if the value of rough Diamonds ſhould riſe or fall, the middling price muſt be always that which the whole was valued at, good and bad blended together; and as many prices as will lie between thoſe of the loweſt price, and thoſe of the middle price, ſo many muſt be admitted above the middle price, and that will determine the higheſt price: Or, in other words, whatever the worſt are valued at below thoſe of the middle ſort, ſo much muſt the fineſt be valued at above the middle ſort. And therefore the value of all Diamonds is to be adjuſted within the limits of the extreme prices.

REMARKS

Remarks *on* Brazil Diamonds.

FROM the want of this knowledge, and the rule of valuing Diamonds, has ariſen the wide difference of jewellers ſentiments, concerning their juſt and natural value; the ill effects of which difference to individuals I ſhall be ſilent about, that having been too ſenſibly felt to need any remarks: But proceed to ſhew what an effect it has had in times paſt on this important property in general.

In the year 1733, rough Diamonds were not worth twenty ſhillings *per* carat; in the year 1735, not worth thirty ſhillings; in the year 1742, not worth more than thirty ſhillings *per* carat; all which may clearly be made appear from publick ſales in the before-

mentioned years. Catalogues of them I have preſerved, on which I have made particular remarks, and ſhall be ready to ſhew them on any proper occaſion. I have been the more careful to preſerve them, believing there never will be the like exhibited again ; and the farther cauſe of publiſhing theſe facts, is to ſhew, that if the traders had better known how to value Diamonds at that time, and had been better informed of the real cauſe of ſo great a plenty as then appeared, they would not have diſcovered ſo great a conſternation as then poſſeſſed them ; which occaſioned many, even of the moſt capital traders in *London*, to believe, that Diamonds were likely to become as plenty as tranſparent pebbles ; and they were ſo far influenced by this opinion, that moſt of them refuſed to buy Diamonds on any terms.

The

The adventurers were chiefly perſons of low circumſtances, on which account the *Lisbon* merchants dreaded any returns made them in Diamonds, or any ſent them for ſale; being forced to deal with ſuch perſons upon credit, and at any price that theſe purchaſers were pleaſed to give for them.

One of the moſt conſiderable *Portugal* merchants, with whom I dealt, told me, in the month of *Jan.* 1733-4, at which time I bought a parcel, to the amount of ſeven hundred and fifty pounds, that he had been forced (for want of more reputable buyers) to ſell and give credit for many hundreds of pounds, to ſuch as he would not have truſted with five pounds caſh; and that he found other merchants were in the like caſe: On which acount there were many large parcels returned to *Lisbon*, they not being able to find

buyers enough, even of this ſort, to take off their goods.

I ſhall here mention ſome other matters, that aroſe in converſation at this time. This gentleman obſerving me to be more exact then others in weighing the large Stones of the parcel I bought of him, and ſome of other parcels, asked me the reaſon of it; upon which I told him, that no man who did not know how to value Diamonds in proportion to their weight (whatever knowledge elſe he might have of rough Diamonds) could be a proper judge of the value of any Stone. Upon which he was pleaſed to ſay, if I had that ſecret, he apprehended I might get what money I pleaſed. I told him, it could be of no ſervice to me till it became publick, and the world made ſenſible of the truth of the principle. Upon this

he

he ſaid, he thought it might be of great uſe to make it publick, and asked, if I did not intend to communicate it to the world. I told him, it was my intention, when circumſtances rendered it more proper; obſerving it would be by no means proper then, as the publick, and likewiſe the traders in them, were ſo apprehenſive of the *Brazil* mines producing an inexhauſtible ſtore; judging from thence, the world would ſcarcely think Diamonds worth any conſideration, eſpecially as jewellers ſo undervalued them.

As this has been, and ſtill is, in a leſs degree, the ſtate of the caſe in regard to Diamonds, it may be proper to inquire, whether it be fact, that theſe mines have produced any Diamonds; or whether the Diamonds that have been ſent from thence, be not ſuch as they procured by trade.

Having many years paſt been very ſolicitous to know the truth of this matter, I have ſpared no pains to come at as good a knowledge thereof as I could procure ; and what information I have met with, I ſhall diſcloſe.

In the year 1734, I had the pleaſure of being acquainted with a gentleman that had been, but a few years before that time, governor of *Fort St. George.* He told me, upon my talking with him about the *Brazil* mines, that he did not believe a tittle of the report, and gave this as a reaſon for his disbelief of it, namely, that when he was at *Fort St. George*, he was informed, that the *Brazil* people had long carried on a ſecret trade with the *India* people at *Goa* for Diamonds, and was aſſured they had a vaſt ſtock, but not very fine, they generally chuſing to buy the more indifferent ſort, for the ſake

ſake of cheapneſs ; and he ſaid, whatever quantity came from thence, would not alter his opinion, in regard to the value of what he was poſſeſſed of, nor would he abate of the price they were valued to him at, in *India* ; ſaying, they only knew how to value Diamonds. In this reſolution he perſiſted to his death, which happened but a few years ſince. Some of theſe Diamonds he ſold before his death, at his own price ; and he then ſaid, it was his opinion, that their ſending their Diamonds to *Lisbon*, was not a matter of choice, but neceſſity, being forced thereto, in order to raiſe a large ſum of money to diſcharge great arrears of indulto, which they then owed the king of *Portugal* ; and the ſame has, ſince that, been ſaid by others. And, moreover, it has been ſaid, that the late king having been

made acquainted that they were greatly in debt to their *European* correſpondents, he inſiſted upon their ſending a ſufficient quantity to diſcharge thoſe debts; and when they came to *Lisbon*, in order to give immediate ſatisfaction to the merchants, it was ſaid, the king ordered them to be ſold in a publick manner, for the ſake of expedition; and ſome have thought it was done out of reſentment to his *Brazil* ſubjects, for their uſing him and the *European* merchants ill; he knowing they had it in their power long before to have remitted theſe Diamonds.

Another circumſtance had like to have eſcaped my notice, which is, that it has been alſo reported here by perſons of figure and unqueſtionable varacity, who happened to be at *Fort St. George* when it was reported that the *Brazil* mines had furniſhed *Europe*

rope with a great quantity of Diamonds very cheap, that the *India* people laughed, and ſaid, it would not alter their price.

From what has been obſerved, there ſeems room to think, that theſe Diamonds are the effect of the king of *Portugal*'s ſubjects trade, and not the produce of his *Brazil* mines; for it cannot be thought any prince would have countenanced ſuch a diſadvantageous method of diſpoſing of the produce of his own mines, as was practiſed in getting rid of them, notwithſtanding any redundancy; on the contrary, that he would have reſtrained the ſending any quantity, that muſt tend to ſink their value, which is always carefully avoided by the *India* people.

And if it were true, that his *Brazil* mines ſo abounded with Diamonds, they

they muſt be come at with a great deal leſs expence than attends the ſearch of Diamonds in *India*; and of courſe he muſt become the richeſt prince in *Europe*: For it would be an additional employment for his *Brazil* ſubjects, in conſequence of which his commerce muſt be greatly increaſed; in as much as we ſhould always encourage it, rather than that of the *India* trade, on account of our purchaſing Diamonds in *India* chiefly for bullion. And can it be ſuppoſed, a wiſe prince would diſregard a gift of Providence ſo highly eſteemed by the eaſtern part of the world? And therefore the methods made uſe of, muſt be ſuppoſed to proceed from the late king's knowing they were the effects of trade; if ſo, it cannot but be judged a wiſe and juſt ſtep in him, to force them to diſcharge their obligations to himſelf, and their

corre-

correſpondents, knowing they could procure no advantage to them, by lying in their hands as a dead ſtock. Beſides, trading in Diamonds has been diſallowed by the late king, and to conceal it from his knowledge is ſuppoſed to be the reaſon of their giving out, that the Diamonds they were formerly poſſeſſed of, were the produce of his *Brazil* mines; and to make it the more plauſible, they ſuffered it to be reported, that they were of a different nature, as well as worſe than *India* Diamonds.

Upon this occaſion I will venture to ſay (from critical obſervations, in an extenſive commerce and manufacture of both) that there has not appeared to me a circumſtance in thoſe called *Brazil* Diamonds, that I have not found in *India* Diamonds; and it is likewiſe noticed, that ſome years cargoe from

the *Brazils* have been as fine as any year's cargoe from *India*; and that the ſmall Diamonds have ſold at as high a price as ever was given for ſmall *India* Diamonds. And it is alſo remarked, that what have of late been brought from *Brazil*, we hear but little of, more than that their quantity yearly leſſens, notwithſtanding their price is raiſed more than treble of what they bore ſome years ago. There are various ſentiments among traders concerning the cauſe of it; but being much divided in their opinions, I ſhall not trouble my readers therewith; not doubting, but their ſending ſo few, will appear to ariſe from their not being poſſeſſed of more. And from hence may be inferred, that they are interrupted in this commerce, and deprived of the means of procuring them as formerly; which

means are ſuppoſed to have been their purchaſing them with *Brazil* gold, wherein the *Brazil* mines are known to abound in a profuſe degree ; and in this ſenſe it may be ſaid, the Diamonds that we have had from thence, are the produce of the *Brazil* mines ; and if there be a check, or an interruption thrown in the way of this barter, we cannot expect to have ſuch quantities as formerly, although more or leſs may always come from thence ; which has been the caſe before the great glut appeared, but they were not then called *Brazil* Diamonds, and what was brought from thence was conducted with great ſecrecy : And it is likely this trade will be continued, from the circumſtance of Diamonds being ſo portable a commodity, and what may be conveyed with great ſecrecy, however ſtrict his *Portugueſe* majeſty's orders

ders may be in prohibiting thereof. As to the political reaſons for prohibiting this traffick, it is not my province to meddle with that.

Amidſt what has been ſaid to ſhew the improbability of the *Brazil* mines having produced the Diamonds that of late years have been placed to their account, the circumſtance that has been before mentioned, deſerves more than ordinary notice; therefore I ſhall recite it again; which is, that, notwithſtanding the *India* people knew what deſpicable prices *Brazil* Diamonds ſold for in *Europe*, in the before mentioned years, they kept up the price of their Diamonds; which ſeems to prove they were the ſellers of thoſe Diamonds to the *Brazilians*, and ſerves to explain what they meant by laughing at the report of the *Brazil* mines furniſhing

Europe

Europe with Diamonds, and their saying it would not alter their price.

This conduct, surely, deserves the highest applause; for had they copied after the *Brazilians*, this great article of wealth, by this time, would have been reduced almost to nothing; the ill effects of which, words cannot sufficiently express: The prevention of this evil the *India* people must have the honour of.

To maintain as invariable a price of these jewels as is possible, must be of the greatest utility to the publick; which they appear to be sensible of, from their past conduct; but there is more to be offered in proof of this.

It is attested by unquestionable authority, that when they find a slack demand for Diamonds, they always withdraw them; the consideration of any quantity they may be possessed of,

seems

ſeems to be no motive with them for abating their price; which is believed to ariſe from their ſuppoſing they have competitors to ſubject them thereto; and from what has been obſerved, the truth of it can ſcarcely be doubted; and their manner of trading with us ſeems to be a farther proof of it; which is thus:

They firſt find out what ſorts are wanted, and then ſhew ſuch goods and put their price: If they are ſold, they have their demand; for they ſuppoſe themſelves to be the only judges of their value; and it does not appear that any one has diſputed the truth of it. From hence it is, that Diamonds are ſent here in *bulces*, which means parcels of Diamonds neatly tied up in muſlins and ſealed by the ſellers of them; which Diamonds are generally bought here by the invoice, that is, are bought before

before they are opened; it being always ſuppoſed they contain the value which they were ſold for in *India*; and the buyer here gives the merchant ſuch a profit as contents him. The Diamonds being thus bought, the buyer opens the parcel, ſeparates them, and then values them ſeparately as his judgment directs; making to himſelf likewiſe ſuch a profit upon the whole parcel, as he thinks proper. And as this is the caſe, it is referred to the conſideration of reflecting minds, whether or no any man can properly judge of the value of Stones of different ſizes and properties, without ſome rule to direct his judgment. As for the different properties of Diamonds, ſpeculation, aſſiſted by the knowledge acquired in manufacturing Diamonds, is the only guide; but whether any can judge of their

value, regarding their magnitude, is the thing in queſtion. It ſeems as if our traders thought the *India* people were maſters of ſome rule for that purpoſe, by placing ſuch confidence in them, as it appears they do by this repreſentation; and it is believed, when the *European* part of the world are acquainted with the true method of eſtimating Diamonds, it will be found, that the *India* people have generally valued their large Diamonds alike at all times, let the demand for them vary as it may.

If that be the caſe, is not this iſſuing out another ſtaple commodity, like that of gold and ſilver? And although its value is not aſcertainable to ſo great an exactneſs as either of thoſe, by an aſſay; yet it may appear, they are reducible to as great a nearneſs in ſpeculation as either of the other two.

But

But however beneficial this may be, the value of Diamonds can never be at all ſettled in *Europe*, whilſt we are amuſed with the notion of the *Brazil* mines being productive of Diamonds. How far it is the intereſt of theſe parts of the world to be well informed of the truth of this matter, is left to the conſideration of the publick.

But ſuppoſe it ſhould be remarked, that although Diamonds in *India* may at all times be near the ſame value, it cannot be the caſe in other parts of the world, ariſing from various circumſtances : The chief cauſe of which variableneſs in the price of Diamonds, or any jewels, in other parts of the world, cannot but be ſeen to be the diſagreement in the ſentiments of jewellers concerning the natural value of them. But the ex-

 traordinary

traordinary inſtances in the late wars in *Germany* will be a farther proof of it, inaſmuch as it has been told us by publick papers, that not above one third or one fourth of the money which gems have coſt, could be procured by way of pledge or ſale: Indeed, the avarice of the buyers may have ſome ſhare in occaſioning ſo great a loſs. Does this prove the intrinſick worth of jewels, ſo frequently talked of? Muſt not this be a vaſt diſcouragement to great perſonages from veſting themſelves with this property?---How fit therefore is it to render them as invariable in their price as the nature of things will admit of, ſince they poſſeſſed themſelves thereof, not only for perſonal ornaments, but alſo as articles of ſolid treaſure, to ſerve ſuch emergencies as have been noticed? And it is known, that there are ſome rough Diamonds of great

great price, as well as poliſhed, in *Europe*, which have been bought upon that principle.

Since it is thus, nothing can be a greater inducement to perſons of high ſtation to purchaſe Diamonds, than rendering their value more ſtaple. And as nothing can accompliſh that ſo much as being well acquainted with their true value, the following method will be found the only way of coming at that knowledge.

It appears from the reaſon of things, that all large Diamonds are to be valued according to the rule advanced, by the price that one of a carat bears, which is ſimilar to the Stone, whoſe value you would know; for as you value the weight in a Stone of one carat, ſo muſt you that of a Stone of the ſame properties, let the weight be what it may. And as a farther proof

of its being right, it will be found, that jewellers of the greateſt experience and knowledge have generally eſtimated Diamonds as this rule directs, by dint of ſound judgment: And as the younger and leſs experienced muſt want ſome aſſiſtance in this important concern, this will put them in the right way, and by means hereof the value of Diamonds will be made univerſally known; as it lies in ſo narrow a compaſs as that of any one's making himſelf acquainted with the worth of a Diamond of a carat weight; which, it is preſumed, perſons of good judgment cannot be at a loſs to know, let them be good, bad, or indifferent; and that ſuch will agree in their ſentiments concerning the value of a Stone of a carat weight, be it as it may, to five or ten *per cent.*

Of the Table of Prices of DIAMONDS.

THE next thing to be taken notice of, is *a table*, which will be found in the 11th, 12th, 13th, 14th, 15th, and 16th plates. This table conſiſts of *the price of Diamonds* from one carat weight to an hundred carats, formed upon the principle of valuing them by the ſquare of their weight, upon the ſuppoſition that the governing price of rough Diamonds, good and bad blended together, is 2*l. per* carat; ſo that 2*l.* is to be reckoned the *mean*, or *middle* price, and will be found of great uſe to prevent the trouble of calculating the price of every Stone by the rule. If any Stone differs in its value from this mean, or middle price, whether

higher or lower, ſo much *per cent.* is to be added, or deducted, as judgment ſhall direct. It may be obſerved, that the tables do not deſcend to ſixteenths of a carat; it is omitted for brevity's ſake, which may be ſupplied by caſting up any two adjoining prices, and then take the half, that will give the prices of the intermediate weight. For example; a Stone of one carat will be ſeen to be the firſt article in the table, and to come to 8*l.* To find it out by the rule, the method is to multiply 2 by 2, that makes 4, which is the ſquare of its weight; then multiply 4 by 2*l.* the price of one carat, that makes 8*l.* Here it is to be remembered, that all the prices which the table contains are ſuppoſed to be of the middle ſort, and alſo that half the weight is ſuppoſed *loſt* in *making*, which occaſions the firſt multiplying by

by 2; but, as this method is more laborious, and intricate, in regard to Stones of *odd* weights, the table will be found of much convenience.

An inſtance is here given as a proof of a Diamond of ſeven carats $\frac{7}{8}$ in the two different methods of valuing. For example; the firſt method is this: The weight of a Stone of ſeven carats $\frac{7}{8}$ muſt be doubled, which makes fifteen carats $\frac{3}{4}$; next, that weight muſt be multiplied by 4 to bring it to grains, that makes 63; then multiply 63 by 63, that makes 3969, the ſquare of the weight in ſixteenths; therefore divide the 3969 by 16, that brings it again to carats, which makes 248 carats and $\frac{1}{16}$; which multiplied by 2 pounds produces 496*l.* 2*s.* 6*d.* The ſecond method is this: Firſt, ſee what a Diamond of ſeven carats $\frac{7}{8}$ is worth *per* carat, which will be found to come to 63 pounds; firſt multiply

7 by 63, that makes 441 pounds; then add the value of $\frac{1}{8}$ of 63 pounds, which comes to 55*l.* 2*s.* 6*d*; theſe two ſums added together produce 496*l.* 2*s.* 6*d.* ſo both totals are alike, and agree with the price of one of the above weight in the table.

It will be here proper to obſerve farther, that no notice is taken of the *additional price*, which the expence of manufacture would occaſion in each Stone. This is omitted on account of the different prices, their different *ſizes* and *weights* demand; and likewiſe on account of the different prices, which their various *ſubſtances* require. Theſe circumſtances render it impracticable to be inſerted, and therefore the prices of both are contained in four tables, exhibited at the end of the treatiſe. The firſt table contains the price of *full-ſubſtanced*, or *full-proportioned Brilliants*,

Brilliants, explained as follows: The firſt column exhibits a ſuppoſed increaſe of ſize and weight, from a Stone of a carat, to one of an hundred carats. The firſt five articles are carried on by the increaſe of one carat each, the following by five carats each. The ſecond column contains the price of their workmanſhip, according to their increaſe in weight, at the rate of 1 *l.* *per* carat. The reaſon of carrying on the gradation by the increaſe of *five* carats, is for the ſake of brevity; as the different prices of the intermediate weights are inconſiderable, compared with the increaſed value of ſuch Stones. The firſt table being explained, it will ſerve as an explanation of the other three.

The ſecond table exhibits the price of making *ſpread Brilliants*, which is rated at 1 *l.* 5 *s.* *per* carat; and is

ſo

ſo done for the following reaſons: Namely, that all *ſpread* Stones require more care than *full-ſubſtanced* ones, and are not ſo ſoon diſpatched. The third and fourth tables regard the price of manufacturing *Roſe* Diamonds; which manufacture demanding leſs labour than that of Brilliants, cauſes the price to be one fourth leſs, as will be ſeen by the 3d table regarding full-ſubſtanced, or full-proportioned Roſe Diamonds. The 4th table regards *ſpread Roſe* Diamonds, the price of which is the ſame with that of full-ſubſtanced Brilliants, which is ſo raiſed for the ſame reaſons as have been given in the caſe of ſpread Brilliants. *N. B.* The prices in theſe tables are to be doubled in wrought Stones, half the weight being loſt in manufacturing.

If I had not inſerted the different expence of manufacturing Diamonds, it

it would be found wanting in the value of every Stone; but may now be eaſily ſupplied from the tables juſt explained. An inſtance will fully evince their uſe, which I will give in the caſe of a full-proportioned Brilliant. For example; ſuppoſe the value is required of one of the mean, or middle ſort, of 7 $\frac{7}{8}$ carats; the Diamond, excluſive of the expence of workmanſhip, comes to 496 *l.* 2 *s.* 6 *d*; the expence of workmanſhip muſt be reckoned at 3 *l.* 15 *s.* *per* carat, which comes to 26 *l.* 14 *s.* 4 *d.* $\frac{1}{2}$; *that* being added, the whole makes 522 *l.* 16 *s.* 10 *d.* $\frac{1}{2}$.

From the various helps contained in this book, it may be reaſonably expected, that ſuch as are skilful in Diamonds, and acquainted with the current price of them, will hereafter univerſally agree.

The

The innate perfections and imperfections of Diamonds come next under notice.

Of the innate perfections, imperfections, and water of DIAMONDS.

THE circumſtances which diſtinguiſh *the fineſt* Diamonds are theſe. Their complexion muſt be like that of a drop of the cleareſt rock water: And if ſuch Stones be of a regular form; and be truly made; and free from ſtains, fouls, ſpots, ſpecks, flaws, and croſs veins, they will carry the higheſt luſtre of any whatever, and will be eſteemed the moſt perfect.

If any are tinctured yellow, blue, green, or red, in a high degree,

which ſeldom happens, they are next in eſteem ; but, if any partake of theſe colours only in a low degree, it ſinks their value below the before-mentioned.

There are other complexions of a more compound ſort, ſuch as brown, and thoſe of a dark hue. The firſt of theſe ſometimes reſemble the browneſt ſugar-candy, the latter dusky iron. And if any Diamonds are attended with ſtains, fouls, ſpots, ſpecks, flaws, and croſs veins, it will abate their luſtre, and ſink their value. Here it may be obſerved, that what is commonly called *the firſt water* in Diamonds, means the greateſt purity, and perfection of their complexion, which, as was ſaid, muſt be like a drop of the cleareſt rock water. When any ſpeak of a Diamond falling ſhort, more or leſs, of that perfection, it is expreſſed by ſaying,

ing, it is of the *ſecond*, or *third water*, &c. till a Stone may be properly called *a coloured* one. And to ſpeak of a Diamond imperfectly coloured, and containing any other defects, as a Stone of *a bad* water only, is very improper; as it does not convey an idea of the particular colour, or defects belonging to it.

Of the ſuperior Worth of DIAMONDS, *over all other* JEWELS.

DIAMONDS have, in every age, been eſteemed *the chief of Jewels*, on account of their innate ſpecifick qualities; which, if not exhibited by proper skill, remain impriſoned. It is certain, that, in their natural ſtate, they have not ſo much beauty

beauty or luſtre, as ſome other ſorts of Jewels; but when truly and judiciouſly manufactured, they throw forth a ſplendor, and luſtre, ſurpaſſing all others, which juſtly entitles them to the moſt perfect workmanſhip, and will conſequently be the moſt likely means of perpetuating them in the eſteem of the world. And this will tend to eſtabliſh their worth, and ſecure every one's property therein; whereas a neglect of exhibiting and diſplaying their beauty, by proper workmanſhip, will render them unworthy ornaments of the great and diſtinguiſhed; which, of courſe, muſt ſink their value. Theſe conſiderations, doubtleſs, will influence the curious and diſcerning to give all due countenance to their being exhibited, in future times, with that beauty and luſtre, of which they are ſuſceptible.

And if the following additional circumſtances be taken notice of, they will farther ſhew, that *Diamonds* deſerve the chief regard of all Jewels. Firſt, they are the beſt *repoſitory of wealth*; inaſmuch as they will lie in the ſmalleſt ſpace of any, and are thereby the moſt portable and beſt conveyance of treaſure. Next, their *ſuperlative Hardneſs* ſecures them from all injury by wear; as nothing can make any impreſſion on them, or prejudice their luſtre, but their rubbing againſt each other. They can only be affected *by fire*, and that muſt be ſtrong and laſting to do them much harm; and the injury they receive thereby ariſes chiefly from taking them *too haſtily* from thence, whereby the immediate impreſſion of the cold air may poſſibly produce flaws, *&c.* A moderate fire will

will only occaſion a roughneſs on their ſurface, which may be repaired by new poliſhing.

Reaſons for working DIAMONDS *in a compleat Manner, and the Conſequences reſulting from a contrary Practice.*

WHAT has been ſaid of the ſuperlative properties of Diamonds, *&c.* ſeems ſufficient to recommend them to the protection of mankind, from any abuſe ariſing by ill workmanſhip, as their pleaſure, honour and intereſt are concerned in it; and nothing appears wanting to influence thereto, but that of the world's being convinced of the neceſſity of it, from being made acquainted

with the abuſe that Diamonds have ſuſtained by the contrary practice. To that end I ſhall firſt reſume the obſervation that has been made on ſmall Brilliants; which is, that they are in general ſo ill wrought as to be void of their true beauty and luſtre, and will not fill up, by one fourth or one third, the ſpace that well wrought Stones do, in a piece of jewelling work; of courſe, purchaſers of ſuch are deprived of one fourth or one third of the ſhew or appearance that well wrought Stones would make, and of the beauty and luſtre that always accompany ſuch: Next, that the ſame effects attend Stones of larger ſizes, made after the ſame manner. *N. B.* The ſame ill effects alſo attend ſmall or large Roſe Diamonds, made in the ſame manner.

The ends and purpoſes that are to be ſerved by this manner of working, naturally

rally fall under conſideration: The moſt that can be pretended, is, that by the world's being brought into a favourable notion of theſe goods, on account of buying them at a lower price by weight than well wrought Stones, trade has been increaſed, and more hands employed; but it cannot mean the increaſe of *England*'s trade, for that has been declining many years, and its hands unemployed, to the great impoveriſhment of the whole body of workmen, and thoſe known to be as good as any, if not the beſt, in the world; and which has ariſen from their refuſing to work after this rude manner, and not being able to ſupport themſelves by the wages that are given abroad for ſuch work, which appear not equivalent to the wages here given to the meaneſt handicraftſmen.

Admitting our neighbours have increaſed the traffick, and employed more hands of the loweſt ſorts than we could ever boaſt of; let the conſequences which are like to flow from this manner of working be conſidered.

By the continuance thereof, the diſeſteem that has of late been ſhewn to Diamonds may increaſe; which principally has taken its riſe from thence, particularly in *England*; and that, probably, has been forwarded by the good appearance which cryſtal or falſe Stone work, commonly ſo called, has made of late (on which all the embelliſhment that care and skill can procure, has been beſtowed.) This is obſerved to the credit and reputation of theſe traders, and their workmen; and in conſequence thereof, this commodity frequently paſſes for Diamonds: And if the ſame care ſhould be taken

in compleating that ſort of work for foreign uſe, they alſo may enter into the like contempt of Diamonds; if ſo, what will become of this boaſted increaſe of trade? But if the truth of the Diamond manufacture be ſupported, their luſtre will conſpicuouſly excel the faint and languid efforts of all cryſtalline matter, with all the helps of art.

To diſgrace this firſt-rate Gem by ill workmanſhip, in bringing it down almoſt to the level of this commodity, ſeems to be very unwarrantable, eſpecially, as it tends to ſink this part of publick wealth, and is a manifeſt diſcouragement to art and ingenuity, and alſo of great prejudice to fair traders, who ſcorn to ſubmit to the encouragement of ſuch mean deceitful artifices, to enrich themſelves.

But, notwithſtanding what has been offered, to ſhew the impropriety, and ill conſequences, of working Diamonds in an ill manner; it is to be feared, that ſuch as have hitherto found their account in it, will purſue the ſame method, ſo long as they can find it their intereſt ſo to do. To prevent this abuſe, the ſizes of *Brilliant* and *Roſe* Diamonds are exhibited, by which any one may know, whether a Diamond of either manufacture be well or ill made; and this is thought the moſt effectual means of putting a ſtop to it, judging all perſons who have any conſiderable value of this kind, will afford their aſſiſtance in diſcountenancing ſuch an injurious practice; if ſo, the world will ſee perſons of rank and fortune diſtinguiſhed from others, by the inimitable luſtre of theſe jewels; for which

which purpoſe, doubtleſs, they were intended.

But it may be ſaid, that many perſons of rank and fortune are poſſeſſed of ſuch ill wrought Stones, and the encouraging of this refinement of manufacture will make them appear in a worſe light. This is allowed; but at the ſame time it is to be underſtood, that all ill wrought Stones are capable of being made as perfect, in reſpect to workmanſhip, as any, without the leaſt loſs of their expanſion or breadth; and that ſuch rectified Stones will appear to ſight rather larger than in their preſent form; for by being made more open, every part of their upper ſurface will be more clearly ſeen, and what loſs of weight they ſuſtain will be compenſated by the remaining weight being of more value; or, in other words, that weight will be worth more *per* carat;

carat; and then, ſuch will weigh as much as they ought when ſold; and by this means indifferent Diamonds may be made fine, if the matter or ſtuff be ſuch, which is frequently the caſe; and the reaſon of their being but indifferent before, was their being overloaded with weight and other ways ill wrought, which obſcured their true luſtre. This compliance with what is propoſed will make them of rather more value than when bought, and the loſs to the purchaſer is that which is paid for rectifying them. This will prove a greater diſadvantage to the purchaſers of ſmall Diamonds than to the purchaſers of larger Stones, as the workmanſhip of ſmall Stones is a conſiderable part of their value.

Here it may be proper to obſerve, that the worſt workmanſhip is frequently performed on coloured Stones,

to

to render them cheap, by which means they are generally deſpiſed; inſtead of that, they ſhould have all the advantage that art can beſtow on them, to recommend them to the juſt favour of the world. And Stones, however coloured, that are not attended with ſpecks, ſpots, fouls, ſtains, or any other defects to weaken their luſtre, ought to have the utmoſt skill of workmanſhip; and numbers there are, if well wrought, that would carry as much or more vigour and ſpirit than many that do not fall under that denomination; and, therefore, if any made Stones appear ſuſceptible of an improvement of their luſtre by being rectified, it is fit that ſuch ſhould receive the benefit thereof, for the ſake of the pleaſure and credit it muſt afford the owners, and the reputation that ſuch a conduct will bring to this ſpecies

of

of jewels. And it is to be imagined, that this will be thought worthy of ſome notice, as the world ſeems ſo ſtrongly diſpoſed to value perfection in this jewel; and none can be ſaid to be ſo, that has any manifeſt imperfection of workmanſhip.

And here I ſhall take the liberty to obſerve, that the truth of the manufacture of either was never brought under any ſtated rules of practice, nor was there any recourſe to be had to prove the truth of the manufacture of any Diamond, till this treatiſe made its firſt appearance; and for want of ſomething of this kind, there have been, in all times paſt, innumerable diſputes amongſt workmen, concerning the true method of working Diamonds.

But this muſt be owned, that the feweſt diſputes on this head have been found

found amongſt thoſe of the beſt judgment ; and, moreover, it is known, that their practice, when left to work agreeable to their own ſentiments, has nearly been conformable to the rules here advanced ; and to which practice they would always have adhered, if left at liberty ; but the ſelfiſh views of thoſe they have wrought for have obſtructed it, and laid them under a neceſſity of working according to the directions given them. This has been the cauſe of ſo much defective workmanſhip on Diamonds, and not only on middling Stones, but likewiſe capital ones.

This was the very cauſe of the largeſt Diamond that ever appeared in *Europe*, being wrought in a deficient manner ; which, if it be now as it came out of the hands of thoſe who wrought it, I take the liberty to ſay,

may

may be rendered compleat ; by which means its form will be more comely and graceful, its luſtre greatly increaſed, and of courſe its value, although its weight may be ſomething reduced ; and then it may be ſaid to poſſeſs all the dignity that nature has favoured it with, and likewiſe that art has done it juſtice.

The firſt fact I can make appear by two leads caſt from the Stone ; one, when it was a rough Diamond ; the other, when cut and poliſhed : And the ſecond, how it came to be wrought as it was, I can prove by inconteſtable evidence, *&c.*

That this is the caſe of this and many other large Diamonds, is not to be wondered at ; but rather, how thoſe who had the direction of manufacturing ſuch Stones, were influenced to ſubmit to the loſs of ſo much weight, having

having nothing but conjecture to direct their conduct; and their having left an over weight, must be owned to be an error of the right side, as that may be discharged, whenever it is thought proper; and it can scarcely be imagined, that any will be fond of retaining weight in a Stone, that renders it ungraceful in its figure, and destroys its life and vigour; especially as its expansion is not lessened thereby, but will appear to sight larger than before, which, perhaps, may cause a Stone to be deemed good, that before was ranked in a lower class. And, as it has been before said, such Stones will be worth as much, or more, notwithstanding the reduction of their weight, than when possessed of their former weight, by the remaining weight being of a higher worth; so the expence of rectifying them is the only loss that will be sustained. *The*

The Uſe of the SIZES *in purchaſing* ROUGH DIAMONDS.

AS the uſe of the *ſizes* cannot but be ſufficiently ſeen in regard to wrought Stones, they will appear of equal uſe in regard to *rough* Diamonds, inaſmuch as they will aſſiſt the judgment concerning the loſs of weight that may be ſuſtained in *working* ANY Diamond; and therefore muſt be of great ſervice towards forming a right notion of their value, as it is well known, that ſome *rough* Diamonds muſt ſuſtain a much greater loſs, or diminution of weight than others, ariſing from their peculiar ſhapes. And to form a true judgment of the value of any *rough* Diamond, the price or value of one of a carat weight ſimilar to the Stone

Stone which is to be purchaſed, determines its value, as in the caſe of *manufactured* Diamonds. But as it is more difficult to judge what a rough Diamond will prove *when cut*, than to judge of one *manufactured*; the buyer, ſuppoſing him a merchant, muſt act with proper precaution, and make ſufficient allowance to himſelf for the uncertainty of the Stone's anſwering expectation when wrought. And, if it be a Stone of a conſiderable value, he muſt allow himſelf alſo for the intereſt of the money he lays out, according to the time he ſuppoſes the Stone may remain unſold. Theſe precautions are the only means of guarding againſt the hazards, and diſadvantages, that attend dealing in large rough Diamonds. And, by ſuch a conduct, dealers may be enabled to ſell at a price agreeable to the eſtima-

tion of the skilful; which eſtimation is the only thing to be regarded by thoſe who purchaſe them for their own uſe. To urge any other conſiderations to the purchaſer for augmenting the price of any Diamond beyond its juſt value, will, it is humbly apprehended, be judged a weakneſs, and likely to hinder the ſale of ſuch goods.

But, if it ſhould be here remarked, that particular caſes, or occaſions, may juſtify the ſeller in demanding an advanced price for any Diamond; ſuch deviations muſt be conſidered as merely occaſional, and the buyer is at liberty, whether he will comply or not.

REMARKS *on the* INDIA *Manufacture of* DIAMONDS, *and their Cuſtom in regard to* ROUGH DIAMONDS.

ALTHOUGH it has been ſuppoſed, under the head of valuing Diamonds, that the *India* people are acquainted with the principle of eſtimating them, it will be now ſhewn, that they are maſters of no other eſſential parts of knowledge concerning Diamonds.

The manufacture of them they ſeem to know very little of, as appears by the wrought Stones that come from thence, none of them being fit for uſe, and therefore are always new wrought when brought to *Europe*; which I ſhall deſcribe as follows: They are called lasks; they are in general

ill ſhaped, or irregular in their form at the girdle; their ſubſtance, or depth, is ill proportioned; ſome have more of the Stone's ſubſtance at top than at the bottom; their tables are ſeldom in the middle, or center, of the Stone, and the collets the ſame; and ſometimes the tables are of an extravagant breadth, and ſometimes too ſmall; in the ſame manner are their collets, and ſeldom horizontal; and their girdles are often very thick and not level; the ſmall work very irregularly performed, and none are properly poliſhed; and the chief thing regarded, is that of ſaving the ſize and weight of Stones: And this is not much to be wondered at in them, as they are unacquainted with the beauties of well wrought Diamonds. From hence it will appear, that they muſt be unqualified to judge of the true worth of individual

individual rough Diamonds. For inſtance; they cannot know what a Diamond will loſe in working, to be well made; nor can they know if a Stone be coloured, what degree of colour it will retain, or what life and ſpirit a Stone will carry well wrought; all which they are very conſcious of; and this makes it very difficult to trade with them for ſingle Stones.

But it is not ſo difficult to trade with them for Parcels, becauſe in them there are Stones of all ſhapes; and as ſome will loſe more, ſome leſs, they gueſs at that as well as they can; and ſo in reſpect to their other properties, in which they are not quite ſo much at a loſs; and then they value them by the lump, as they weigh one with another, by the rule.

From whence we may ſee, how neceſſary it is for *Europeans* to be furniſhed

niſhed with knowledge, as by that means they muſt have ſome advantageous opportunities in buying large Stones, through the ignorance of theſe people. Although it has been ſhewn how much regard they have to the ſaving of weight in working of Diamonds, their attachment thereto will farther appear by the following cuſtom having prevailed time out of mind, the reality of which ſeems not to be doubted.

The great people there employ a vaſt number of ſlaves in ſearch of Diamonds: The ſmall and middle ſize Diamonds they ſell, and ſome of the large ones; but when they are fortunate in meeting with a very large one, they lay it up as a treaſure, to aggrandize their family; and the head of the family has a ſmall ſhallow hole drilled on the ſurface of the Stone,

and when he dies, the next chief does the ſame ; and ſo from one to another : And the more of theſe holes a Stone has, the higher it is in eſteem, although ſuch holes may prejudice it, if it were to be manufactured ; but as that is never intended, they do not regard ſuch prejudice ; and theſe Stones are never parted with, let what will happen ; and if they foreſee any ruin to the family (as that ſometimes happens in their further purſuit of Diamonds, which is very expenſive by the vaſt number of hands they employ in that undertaking) in ſuch caſes they bury thoſe Stones, ſo that they never appear again. For they cannot bear the thoughts of any others having the poſſeſſion of that which they have obtained at ſo great an expence ; and it is ſaid, that, in conſequence of that cuſtom, there are many very large

Diamonds irrecoverably loſt, and likewiſe many that will never be parted with.

This cuſtom is imagined to ariſe from their being fearful of a Diamond's loſing its value, by loſing weight and magnitude in being wrought; which is very true, as they work them, becauſe they are void of luſtre; and therefore it is not an unreaſonable conduct in them, on that account alone; but there is another reaſon aſſigned for it, which is, the hazard their Diamonds are expoſed to by their manner of working: This is much greater than what attends the working of Diamonds in *Europe*, for they perform it in a rougher manner than is done by the *Europeans*, more eſpecially in reſpect to poliſhing them; in doing of which they lay an exceſſive weight on their Diamonds through

through unskilfulneſs (and for want of ſuch curious machinery or mills, as are in *Europe*) which makes it not practicable for them to give Diamonds a true poliſh.

N. B. Although this is the caſe in reſpect to the *India* manner of working, there come now and then Stones tolerably well wrought and poliſhed; but theſe are ſuppoſed to have been done by *Europeans*, and upon their mills and *skeves*, and to have been the property of ſuch.

Some

Some Account of AUTHORS, *who have heretofore treated of* DIAMONDS *and* PEARLS, *and the Improvements which have been made ſince their Times.*

THOUGH what I have advanced is really the produce of many years critical obſervation in the courſe of dealing in rough and poliſhed Diamonds, and has been a work of much time, labour, and great expence; I am not a little pleaſed to ſee it agree with what I have ſince found to be mentiened by ſome celebrated writers, who have exhibited the principle upon which Diamonds are to be valued. The firſt which fell into my hands was Monſieur *Tavernier*, who mentions it in his *Voy-*

ages

ages through *Turkey*, *Perſia*, and the *Eaſt-Indies*; which he publiſhed in the year 1670, and which were tranſlated into *Engliſh* in the year 1678. The next was the memorable Mr. *Lewis Roberts*, who publiſhed it in his *map of commerce*, in the year 1638. Some time after, I communicated the principle of valuation I have exhibited in this treatiſe, to an acquaintance of mine, who was a dealer and a Diamond-cutter, and who had lived many years at *Fort St. George* in that capacity; by whom I was informed, that the *India* traders (meaning the *natives* of *India*) had ſome eſtabliſhed rule of eſtimating Diamonds, &c. which he believed to be the ſame with what I then propoſed. At length, ſeveral years after the peruſal of the above writers, a ſtill more antient one was ſhewn me by means of a gentleman of great

great learning, and of great figure in the literary world. This author was *John Arphe de Villa Fane*, who ſpeaks of the principle of valuation in his treatiſe, entitled, *The ſtandard of gold, ſilver, and precious Stones*, publiſhed in *Spaniſh* in the year 1572, by the King of *Spain*'s eſpecial *licence*. Theſe writers have mentioned ſome attempts to ſettle rules for the manufacture of Diamonds; but, it is to be obſerved, that not only what they have delivered is very imperfect; but that when they wrote, the art of making *Brilliants* was not diſcovered; which manufacture is eſſential to the ſaving of the weight formerly loſt, by cutting all rough Diamonds into *tables*, and *roſes*; to prevent which loſs of weight, as much as poſſible, a heavy load of ſubſtance has been left on both theſe kinds of manufacture. Moreover, to

ſave

ſave weight, rough Diamonds have been frequently *ſawed*, eſpecially ſuch as had no corners, in order to make them into *roſes*; but this practice was attended with a much greater expence of workmanſhip, and withal, a much greater loſs of weight, than they have been ſubject to, ſince the making of *Brilliants* has been introduced; this latter manufacture being more ſuitable to Stones of moſt ſhapes.

Theſe obſervations ſhew, that if the truth of the manufacture of *Table* and *Roſe* Diamonds had been known in times paſt, which appears not to have been the caſe, although it might have been of uſe in preventing the paſt defective manner of making them, it could not procure the advantages which flow from the addition of the *Brilliant* manufacture, ſince *that* renders the whole *a compleat ſyſtem*; and not only contributes to the greateſt ſaving of weight,

weight, but likewiſe aſcertains the general loſs of weight, as has been already obſerved, which could not be known till the manufacture was reduced to ſettled rules. The want of this, probably, occaſioned a diſregard of what has been taken notice of by theſe *authors*, concerning the manufacture, and valuation of Diamonds.

The next thing to be conſidered is *Pearls*.

Of PEARLS, *their Perfections and Imperfections.*

THESE Jewels are next in importance to Diamonds, as they conſtitute the next greateſt ſhare of wealth of any other kind. The firſt thing to be obſerved concerning them, is,

is, that what beauty they poſſeſs, is the mere produce *of nature*; and that they are not ſuſceptible of any advantages or helps *by art*; a circumſtance which recommends them to the eſteem of the world. Thoſe of the fineſt ſhape are perfectly *round*, which fits them for necklaces, bracelets, jewels for the hair, and other ſuch like uſes. But if a Pearl, of any conſiderable ſize, be of the *ſhape of a Pear*, it is not reckoned an imperfection, becauſe it may be ſuitable for drops to ear-rings, ſolitairs, and many other jewels. Their complexion muſt be *milk white*, not of a dead and lifeleſs, but of a clear and lively hue, free from ſtains, fouls, ſpots, ſpecks, or roughneſs; ſuch are of the *higheſt* eſteem and value.

Pearls are *defective* when rough, ſpotted, or dull; whether that be owing to any miſcarriage of nature, or to age,

age, to wear, or any other accident: When irregular in their ſhapes, be they flat or hollow, craggy or gibbous: When they are ſtained with any *colour*, as yellow, blue, green, red, brown, or that of a dusky iron. It is alſo an imperfection, when they have large drilled holes, or are rubbed flat about the edges of the holes by long uſe. Theſe defects cauſe a very conſiderable difference in *the value* of Pearls of the ſame weight and ſize.

Of the RULE *of valuing* PEARLS.

THE only rule of valuing them, is by the ſquare of their weight, as in the caſe of Diamonds; nature producing them after the ſame manner, *viz.* a vaſt number of ſmall ones, and

and progreſſively, a leſs number of larger, as they increaſe in ſize and weight. Upon this principle two *tables* are formed, of the *prices* of Pearls. The firſt eight contain thoſe of a carat weight *downwards*, of eight different values, which will be found in Plates XVII, XVIII, XIX, XX, XXI, XXII, XXIII, XXIV. The firſt being explained, it ſerves for the other ſeven. The firſt column contains the *number* of Pearls in an ounce Troy, from thoſe of a carat weight, to ſuch as weigh but the 32d part of a carat. The ſecond column contains the progreſſive decreaſe of their *weight*, from thoſe of one carat, to thoſe of the 32d part of a carat. The third contains their ſeveral *prices*, from one carat at 2 *s.* to thoſe of the $\frac{3}{128}$th part of a penny. The fourth contains the price of an ounce, at the rate of 2 *s.* *per* carat,

which makes 15*l.* to that of the ſmalleſt ſize, which is 9*s.* 4*d.* $\frac{1}{2}$.

The next thing to be taken notice of, is a Table that relates to Pearls of a carat weight, and *upwards*, to an hundred carats, which will be found in Plates XXV, XXVI, XXVII, XXVIII, XXIX, XXX. The prices of Pearls in this Table, are founded upon the ſuppoſition, that the general price of Pearls, good and bad blended together, is 8*s.* *per* carat; which will be found to be the firſt article in it. This Table, therefore, will be of the ſame uſe with regard to PEARLS, as the Diamond-Table is in regard to *Diamonds.* For, if any Pearl *exceeds* in quality, or *falls ſhort* of, thoſe of the middle ſort; the riſe, or fall, upon the price of a Pearl of any weight muſt be ſo much *per cent.* as judgment ſhall direct; which prevents all trou-

ble of finding it out by the rule. To ſhew the convenience of this Table, the following example may be given. If the value of a Pearl of 4 carats $\frac{7}{8}$ is required, which may be ſuppoſed to be 10 *per cent.* better than one of the mean or middle price, its price will be found, by the Table, to be 9*l.* 10*s.* 1*d.* $\frac{1}{2}$. Then 19*s.* is to be added, which is the produce of the 10 *per cent.* and makes its value to be 10*l.* 9*s.* 1*d.* $\frac{1}{2}$.

To find out the firſt price by the rule, reduce the 4 carats $\frac{7}{8}$ into eighths, which makes 39; then multiply 39 by 39, that makes 1521, the ſquare of the weight in ſixteenths; therefore divide 1521 by 16, that brings it again into grains, and makes 95; then divide the 95 by 4, that brings it to carats, and makes 23 carats,

3 grains, and $\frac{1}{16}$ of a grain; which, at 8*s. per* carat, produces 9*l.* 10*s.* 1*d.* $\frac{1}{2}$.

And as another method is introduced for finding out the value of Diamonds, which is as applicable to Pearls, the foregoing weight is made uſe of as an example.

For inſtance; ſee what a Pearl of 4 carats $\frac{7}{8}$ comes to at 8*s. per* carat, which will be found to be 39*s.* ſo multiply 39 by 4, that makes 156*s.* or 7*l.* 16*s.* then add the value of $\frac{7}{8}$ of 39*s.* which is 1*l.* 14*s.* 1*d.* $\frac{1}{2}$; caſt up the two ſums, and that will produce 9*l.* 10*s.* 1*d.* $\frac{1}{2}$: So theſe two totals are alike, and agree in price with one of that weight in the Table; and that being the price of one of the middle ſort, the value of the 10 *per cent.* muſt be added, which is 19*s.* ſo the value of ſuch a Pearl is 10*l.* 9*s.* 1*d.* $\frac{1}{2}$.

Theſe

Theſe inſtances are ſuppoſed ſufficient to ſhew, how much readier the value of any ſingle Pearl is to be found, by making uſe of the Table; the uſefulneſs of which will appear in a ſtronger light, when it is conſidered, what number of occaſions Pearls furniſh by their multiplicity, and likewiſe the ſmall value they are of individually; although not ſo, regarding their quantity. *N. B.* Their value compared with Diamonds is but as 8*s.* to 8*l.*

As an application to the Table appears to be by far the readieſt way of coming at the value of any ſingle Pearl, its farther uſefulneſs will be ſhewn in valuing any parcels of Pearl.

For inſtance; ſuppoſe a parcel of Pearls (be their number and weight what they may) and various, in reſpect to their qualities, or goodneſs;

firſt, weigh the parcel all together; when the weight is known, count their number; when that is known, ſee what the weight would be *per* piece, if they were all of one weight, and then endeavour to form a judgment what they may be rated at *per* carat, as a mixed Parcel: Having ſettled that, ſee what a Pearl is worth, of the weight you found they would be of if they were all of equal weight or ſize, and then value the weight of the whole Parcel by the price of that Pearl, and that will give the value of the whole Parcel. To illuſtrate this, ſuppoſe 9 Pearls of 9 ſeveral weights, which may be of different qualities or goodneſs, but being blended together they may be reckoned worth 8*s.* *per* carat. As this ſuppoſed price agrees with the Table, the example will be drawn from thence, and will

begin

begin with the firſt article therein, as underneath.

	Carats	£.	s.	d.
1ſt - - of	1 0 0 0 - -	0	08	0 0
2d - - -	1 0 0 $\frac{1}{8}$ - -	0	10	1 $\frac{1}{2}$
3d - - -	1 0 $\frac{1}{4}$ 0 - -	0	12	6 0
4th - - -	1 0 $\frac{1}{4}$ $\frac{1}{8}$ - -	0	15	1 $\frac{1}{2}$
5th - - -	1 $\frac{1}{2}$ 0 0 - -	0	18	0 0
6th - - -	1 $\frac{1}{2}$ 0 $\frac{1}{8}$ - -	1	01	1 $\frac{1}{2}$
7th - - -	1 $\frac{1}{2}$ $\frac{1}{4}$ 0 - -	1	04	6 0
8th - - -	1 $\frac{1}{2}$ $\frac{1}{4}$ $\frac{1}{8}$ - -	1	08	1 $\frac{1}{2}$
9th - - -	2 0 0 0 - -	1	12	0 0
The 9 weigh	13 $\frac{1}{2}$ and come to	£.8	09	6 0

The above 9 Pearls weighing 13 carats $\frac{1}{2}$, would make the weight of each 1 carat $\frac{1}{2}$, the price of which in the Table is 18*s.* therefore multiply 18*s.* by 9, the number of the Pearls, that makes 162*s.* or 8*l.* 2*s.*

The value, rating them by their ſeveral weights, as above, makes the

total 8*l.* 9*s.* 6*d.* which is 7*s.* 6*d.* more than by the other method of valuing them; and this ariſes from the loſs of fractions in that caſe; and although that be ſomething in this ſum, it is not worth regard in a larger ſum, which will be the ſame when Pearls are rated at 8*s.* *per* carat: And for farther ſatisfaction the following caſe is inſerted.

	Carats	£.	s.	d.
1ſt - - of	6 0 0 0 - -	14	08	0 0
2d - - -	6 0 0 $\frac{1}{8}$ - -	15	00	1 $\frac{1}{2}$
3d - - -	6 0 $\frac{1}{4}$ 0 - -	15	12	6 0
4th - - -	6 0 $\frac{1}{4}$ $\frac{1}{8}$ - -	16	05	1 $\frac{1}{2}$
5th - - -	6 $\frac{1}{2}$ 0 0 - -	16	18	0 0
6th - - -	6 $\frac{1}{2}$ 0 $\frac{1}{8}$ - -	17	11	1 $\frac{1}{2}$
7th - - -	6 $\frac{1}{2}$ $\frac{1}{4}$ 0 - -	18	04	6 0
8th - - -	6 $\frac{1}{2}$ $\frac{1}{4}$ $\frac{1}{8}$ - -	18	18	1 $\frac{1}{2}$
9th - - -	7 0 0 0 - -	19	09	6 0
The 9 weigh	58 $\frac{1}{2}$	£. 152	09	6 0

The

The above 9 Pearls weighing 58 carats $\frac{1}{2}$, would make the weight of each 6 carat $\frac{1}{2}$, the price of which in the Table is 16*l.* 18*s.* Firſt, multiply 9 by 16*l.* that makes 144*l.* next, multiply 9 by 18*s.* that makes 8*l.* 2*s.* add theſe two ſums together, the total will be 152*l.* 2*s.* which is 7*s.* 6*d.* ſhort of the above ſum of 152*l* 9*s.* 6*d.* But if the number of articles had been more, and the price of any parcel of Pearl ſhould be higher, it can but little increaſe the difference; and therefore it is not worth regarding, more eſpecially when it is conſidered, that none can judge the value of any one Pearl, or parcel, to any ſuch-like nicety. As to what has been ſaid of the convenience of this Table, the ſame might have been ſaid of the Diamond-Table; but as there ſeemed not to be the like neceſſity for it, in regard to

Diamonds,

Diamonds, it has hitherto been omitted, and the rather, to avoid repetition.

As the convenience of this Table is evidently ſhewn, it may be proper to obſerve, that in making uſe of that, or either of the other methods, for finding the value of Pearl, the higheſt price of any Pearl of a carat weight, cannot be valued at more than 16*s.* when the price of the middle ſort, of that weight, is valued at 8*s.* nor thoſe of the lower ſort, of a carat, at leſs than 2*s.* becauſe all of a baſer ſort deſerve not to be conſidered as jewels. And this, probably, will be thought ſcope enough to employ ſpeculation and judgment; notwithſtanding which, it is to be ſuppoſed, that all who are ſkilful will agree in ſentiments concerning the value of any Pearl of a carat weight, however circumſtanced,

as

as nearly as in the caſe of Diamonds, as the value of Pearls of any weight is to be determined by the price of one of a carat weight, ſimilar in all circumſtances. Or, as was ſaid of Diamonds, the ſame may be ſaid of Pearls, that every Pearl is to be valued as it is worth *per* carat, by the rule of eſtimating.

N. B. It is to be obſerved, that what is ſuppoſed of judicious jewellers agreeing in their ſentiments to Five or Ten *per cent.* concerning the value of any Diamond or Pearl of one carat weight, by which the value of a Diamond or Pearl of any weight is to be determined, is to be underſtood to relate to the natural and juſt value of them only; and when there is a compliance with any other price, that muſt be conſidered as the occaſional price; and if perſons who buy for their uſe, could be

be aſſured what is the juſt price of any jewel, it would be the means of influencing them to give the value of them. And this muſt neceſſarily facilitate the tranſactions of this buſineſs; and, I am humbly of opinion, if this had been the caſe in times paſt, many capital jewels, which have lain many years in the hands of perſons who bought them in order to make profit of the money laid out, would have found purchaſers of them long ago, to the advantage of their preſent owners.

As ſo much depends on traders being maſters of the moſt compleat knowledge of this buſineſs, it muſt be ſuppoſed they will not be wanting in improving themſelves therein by all means that may be procured, as it will render them a beneficial body to the reſt of mankind, and of courſe raiſe

their

their characters, which have heretofore lain under diſagreeable imputations.

Here it may be proper to obſerve, that whatever knowledge perſons may have of the juſt value of jewels, it will not exempt thoſe who buy them for their own uſe from ſuſtaining a loſs in purchaſing them; but it will leſſen the loſſes that might otherwiſe happen, which the world has heretofore been ſubject to for want of ſuch knowledge. That loſſes muſt be ſuſtained is unqueſtionable, and that theſe muſt vary as circumſtances differ, the following caſes will evince.

Obſervations

Obſervations on the Loſſes ſuppoſed to be ſuſtained by the Purchaſe of JEWELS.

THE expence of making ſome pieces of jewelling work comes to a conſiderable part of the purchaſe money; and generally, where there is the leaſt value of Diamonds, the expence is the greateſt; as, when a large number of ſmall Diamonds are employed: When ſuch a jewel is re-ſold, that expence muſt be deducted, if it be injured by wear or by accident, or it becomes unfaſhionable.

Again, jewellers muſt be ſuppoſed to have a conſiderable ſum of money employed in trade, the returns of which are not very frequent; and therefore a loſs muſt unavoidably attend the purchaſing Jewels, and the greateſt

greateſt in buying large Diamonds, although the expence of ſetting them be leſs, on account of their lying much longer in the poſſeſſion of jewellers than thoſe of the ſmaller ſort; and therefore all jewellers ſuppoſing the probability of this, never give ſo near the value of them as for ſmaller Stones, they being always more marketable.

As this is the caſe, perſons of rank and fortune, that need not regard any reaſonable loſs, or the intereſt of money, are the proper purchaſers of jewels; and the money laid out by ſuch perſons can no more be deemed luxury in them, than that which is expended in equipping and furniſhing ſide-boards and cabinets, and on all other coſtly perſonal equipments in gold and ſilver. But it may be ſaid, that the latter is more uſeful and neceſ-

ſary

ſary than the former. To which it may be anſwered, that its uſes may be ſupplied at a much cheaper rate; ſo the appearance and credit muſt be the remaining motive for laying out money that way; which is the ſame in reſpect to jewels: And if the loſſes attending the purchaſing theſe be an objection, it will be found to lie as ſtrong againſt the other, in reſpect to faſhionable elegant things, the workmanſhip of which, upon an average, comes to at leaſt $\frac{1}{4}$, if not $\frac{1}{3}$, of the purchaſe money.

The loſs by jewels, it is humbly apprehended, will not, in future times, exceed that, although it has been otherwiſe in times paſt, as appears by inſtances that have been given, which ſhew that not above $\frac{1}{3}$ or $\frac{1}{4}$ of the purchaſe money could be obtained for

for jewels, either by way of pledge, or ſale; which has chiefly aroſe from jewellers not being well acquainted with the natural and juſt value of them, which cannot be the caſe in future time; it being evident, that traders have it in their power to come at their true value, by eſtimating as they are worth *per* carat, by the rule exhibited. This being the caſe, any one elſe may attain the knowledge of the value of any Diamond or Pearl, or parcels thereof, by applying to a skilful jeweller, to know what they may be worth *per* carat.

And this will be the means of preventing any perſons ſelling their jewels on ſuch diſadvantageous terms, as have been before taken notice of; ſince they will rather pledge them, and wait for a more favourable offer; and a better knowledge of their value will procure

more money lent on them, if occaſion requires it, than in times paſt. And as the skill of traders appears ſo uſeful, they muſt be ſuppoſed to be intitled to a ſuitable reward for giving their opinions in all ſuch caſes. Theſe meaſures will tend to ſupport the worth of Jewels, and render all property of this kind permanent wealth, excluſive of the deductions a little before mentioned, and make them the proper poſſeſſion of perſons of rank and fortune here, as well as in other countries; eſpecially, if the wealth of the nation increaſes, becauſe all purchaſes of income muſt advance, as that augments, and of courſe bring down the value of money.

For example; if any one ſhould be forced to give three hundred pounds for an income that in time paſt could be purchaſed for two hundred pounds,

it is evident that then three hundred pounds is reduced to the value of two hundred. If this be an evil, the laying out the exuberance of our money in Jewels ſeems to be the propereſt redreſs of it, as they are a durable, though not a profitable, treaſure; inaſmuch as they may be found of convenience in any time of diſtreſs, whether private or publick. The latter, indeed, we have the happineſs to have no reaſon to fear.

What has been obſerved of the utility of Jewels, Diamonds eſpecially, to perſons of dignity, and thoſe of affluent fortunes; and of the conduct of the *India* people in not forcing the ſale of them, by lowering their price, but on the contrary withdrawing them, when there appears a ſlack demand, which is ſuppoſed to ariſe from the great expence they are at in the ſearch of them; for although the price of labour

in *India* is exceſſive cheap, yet the hands that are employed in this work, as Monſieur *Tavernier* and other authors have taken notice of, are ſo very numerous, that it makes it a coſtly, and even a precarious undertaking: And conſidering that, notwithſtanding *Europe* has been ſupplied with Diamonds from thence, and from the *Brazils*, within twenty years laſt paſt, abundantly more than in any preceding number of years, yet the amount of the annual value of them, on an average, comes a great deal ſhort of two hundred thouſand pounds ſterling: And farther conſidering, that many countries are come more into the uſe of them of late years than formerly; and that ſome which in times paſt were almoſt ſtrangers to their exiſtence, are now buyers of them, but principally the moſt indifferent ſort; which is a beneficial

beneficial circumſtance, as the taſte of other countries, which I need not name, is ſo much refined: All theſe circumſtances taken into the account, and ſuppoſing the *Brazil* mines prove abortive, cannot but abate a ſuſpicion that has been entertained concerning this part of the world's being glutted with Diamonds, which, it is thought by ſuch perſons, will in time ſink the price of them.

Judging thoſe conſiderations are ſufficient to quell ſuch fears, I ſhall proceed to ſhew it is not the caſe at preſent, their price of late being advanced (I mean in *Europe* only) and the cauſe of it is this, that moſt of the capital Jewels are returned into the poſſeſſion of their proper owners, which have ſome years paſt been in

the hands of uſurers, owing to the great expence that ſome Princes have been at in the late war; which the peace has not only enabled them to redeem, but likewiſe qualified them to become farther purchaſers. And this proves the fitneſs of pledging Jewels rather than ſelling them below what they ought to fetch, ſuppoſing that neceſſity does not force any thereto; which is not to be imagined of perſons of high rank, or of good eſtates, as time gives them an opportunity of redeeming any pledges.

CONCLUSION.

THIS concludes the important ſubjects I have been treating of; and the enlargements that have been

been made to this edition, I flatter myſelf will be found not only explanatory of my firſt publication, but that they will likewiſe give force to what is therein contained, and which would have been added thereto, had I then ſeen it to be neceſſary; but which I have not been convinced of till lately, and now think the omiſſion of it would be an impediment to my deſign, which is that of communicating truth and knowledge, beneficial to the publick, and to all ingenious traders, and which is calculated to raiſe their reputations and uſefulneſs, and likewiſe to promote art in the embelliſhments of Diamonds, and recover, if poſſible, the almoſt loſt manufacture of them to this kingdom, that has in time paſt been poſſeſſed of the chief ſhare thereof, and which has carried the improvement of it to the greateſt

height of any part of the world, and is now as capable of doing ſo as ever, if permitted; which I hope to ſee brought about.

The loſs of this valuable manufacture, and of the trade reſulting therefrom, has been wholly owing to a deluſive manner of working them abroad, which enables foreigners to ſell Diamonds cheaper by weight than it is poſſible to afford well wrought ones for. By this means they are become poſſeſſed of almoſt the whole of this manufacture and trade.

And this practice has been much countenanced by ſome traders in *London*, who have ſold for ſome years paſt $\frac{3}{4}$ or more of theſe foreign wrought Diamonds, to the great diſcredit of their wearers; which conduct ſeems to come but little ſhort of an affront on the quality and gentry of this kingdom,

dom, and ſhews a manifeſt diſregard of the intereſt thereof; which I am ſorry to have occaſion to take notice of, as well as of ſome other matters that could not juſtifiably eſcape my obſervation, but which I am ſatisfied will give no offence to any impartial unprejudiced perſon; and the new matter in this edition, I doubt not, will meet with the approbation of the judicious, as it muſt give an additional inforcement to what is contained in the firſt, and ſerves to render theſe important articles of wealth of more eſtabliſhed worth than in times paſt, ſince their value appears to be determinable by rules founded on reaſon and truth, which has hitherto been ſubject to the capricious eſtimation of unguided judgment. And I am the more encouraged to hope for the countenance of ſuch perſons, as my firſt has received

that

that honour, as well among people of rank and condition, as among traders in jewels ; and I have the ſatisfaction of knowing it daily gains ground, and am particularly pleaſed in finding a conſiderable increaſe of buſineſs within twelve months paſt, in the beſt manner of working Diamonds.

And now being no ways conſcious of having taken any unwarrantable freedoms in any part of this treatiſe, but purſued truth, juſtice and the fitneſs of things to the beſt of my knowledge, I ſhall not trouble my readers with any farther vindication of my conduct. But in reſpect to any imperfection of ſtile that may appear in this treatiſe, I hope the candid part of the world will overlook it, as I make no pretenſion to any accompliſhment in that way ; and all that I have aimed at has been to convey my thoughts in as clear

a manner as my abilities would enable me to do: And this, I queſtion not, will be accepted as a ſufficient apology for any inaccuracy of expreſſion in the book.

N. B. Both the former edition and this are entered in the hall-book of the company of *Stationers.*

The

The expence of making full proportioned Brilliant Diamonds.				The expence of making ſpread Brilliant Diamonds.			
	Per Carat.				*Per* Carat.		
Carats.	£.	s.	d.	Carats.	£.	s.	d.
1	1	0	0	1	1	5	0
2	1	2	6	2	1	8	1½
3	1	5	0	3	1	11	3
4	1	7	6	4	1	14	4½
5	1	10	0	5	1	17	6
10	2	2	6	10	2	13	1½
15	2	15	0	15	3	8	9
20	3	7	6	20	4	4	4½
25	4	0	0	25	5	0	0
30	4	12	6	30	5	15	7½
35	5	5	0	35	6	11	3
40	5	17	6	40	7	6	10½
45	6	10	0	45	8	2	6
50	7	2	6	50	8	18	1½
55	7	15	0	55	9	13	9
60	8	7	6	60	10	9	4½
65	9	0	0	65	11	5	0
70	9	12	6	70	12	0	7½
75	10	5	0	75	12	16	3
80	10	17	6	80	13	11	10½
85	11	10	0	85	14	7	6
90	12	2	6	90	15	3	1½
95	12	15	0	95	15	18	9
100	13	7	6	100	16	14	4½

The

The expence of making full proportioned Roſe Diamonds.				The expence of making ſpread Roſe Diamonds.			
Carats.	*Per* Carat. £.	s.	d.	Carats.	*Per* Carat. £.	s.	d.
1	0	15	0	1	1	0	0
2	0	16	10½	2	1	2	6
3	0	18	9	3	1	5	0
4	1	0	7½	4	1	7	6
5	1	2	6	5	1	10	0
10	1	11	10½	10	2	2	6
15	2	1	3	15	2	15	0
20	2	10	7½	20	3	7	6
25	3	0	0	25	4	0	0
30	3	9	4½	30	4	12	6
35	3	18	9	35	5	5	0
40	4	8	1½	40	5	17	6
45	4	17	6	45	6	10	0
50	5	6	10½	50	7	2	6
55	5	16	3	55	7	15	0
60	6	5	7½	60	8	7	6
65	6	15	0	65	9	0	0
70	7	4	4½	70	9	12	6
75	7	13	9	75	10	5	0
80	8	3	1½	80	10	17	6
85	8	12	6	85	11	10	0
90	9	1	10½	90	12	2	6
95	9	11	3	95	12	15	0
100	10	10	7½	100	15	7	6

FINIS.

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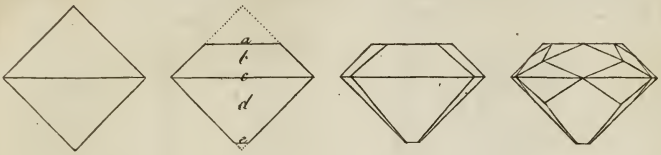

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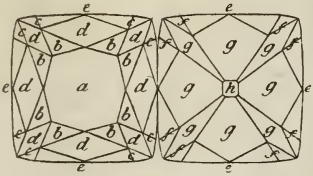

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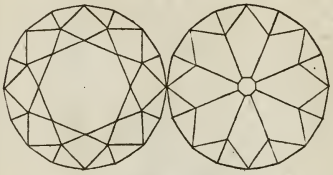

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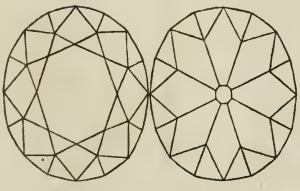

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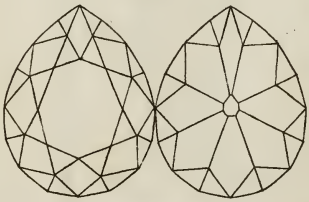
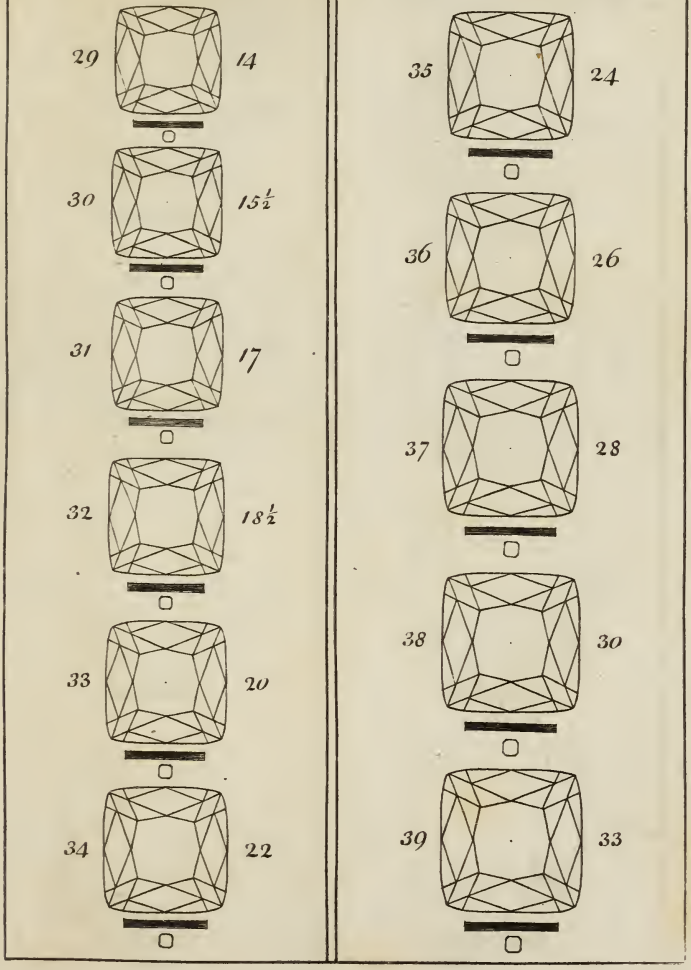


The Size of Brillant Diamonds.

Number	Weight	Number	Weight	Number	Weight
1	1	13	3 3/4	22	7
2	1 1/8	14	4	23	7 1/2
3	1 1/4	15	4 1/4	24	8
4	1 1/2	16	4 1/2	25	9
5	1 3/4	17	4 3/4	26	10
6	2	18	5	27	11
7	2 1/4	19	5 1/2	28	12 1/2
8	2 1/2	20	6		
9	2 3/4	21	6 1/2		
10	3				
11	3 1/4				
12	3 1/2				

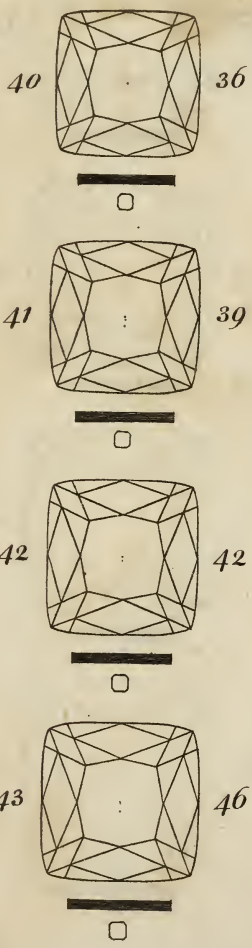
Brillant Diamonds.

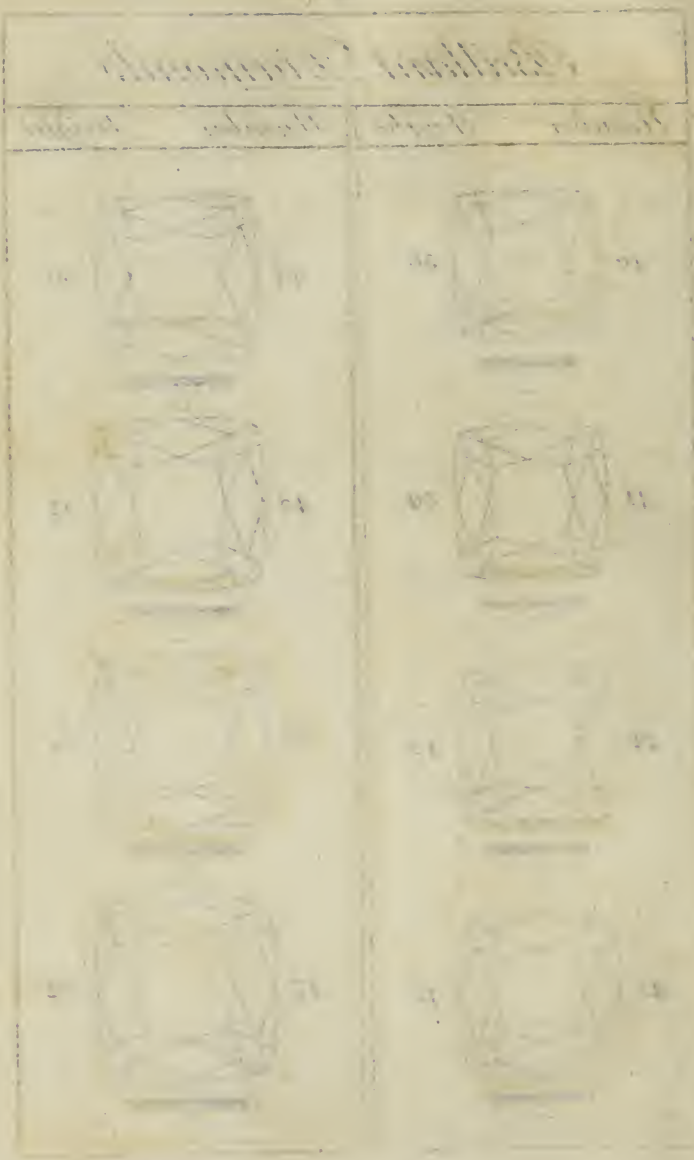
Number	Weight	Number	Weight
29	14	35	24
30	15½	36	26
31	17	37	28
32	18½	38	30
33	20	39	33
34	22		



Brillant Diamonds.

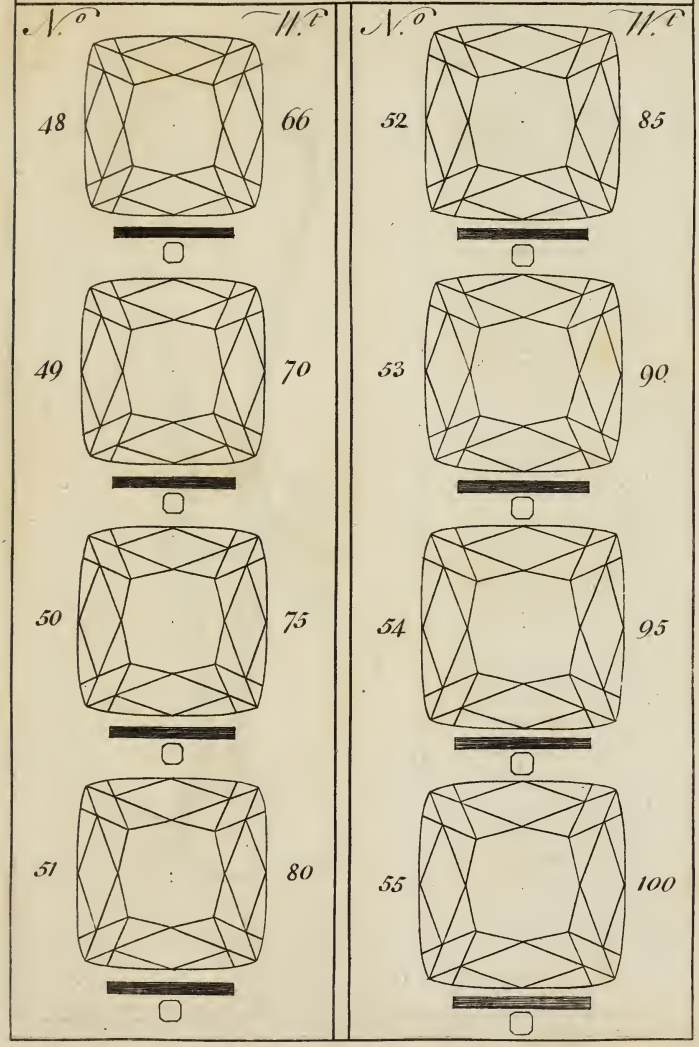
Number	Weight	Number	Weight
40	36	44	50
41	39	45	54
42	42	46	58
43	46	47	62

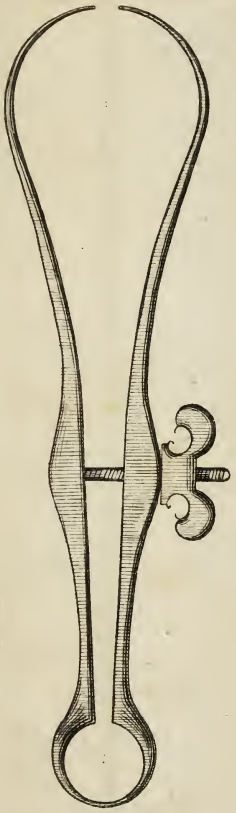


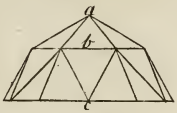


Brillant Diamonds.

N.o	Wt	N.o	Wt
48	66	52	85
49	70	53	90
50	75	54	95
51	80	55	100






a
b
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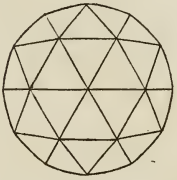
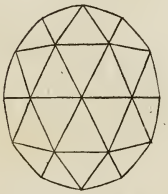
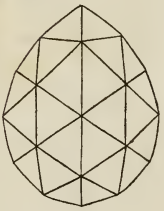




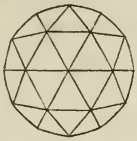
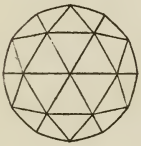
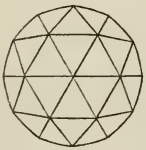
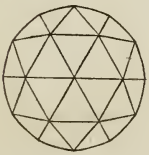
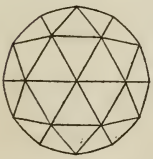
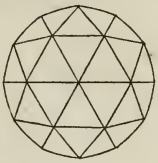
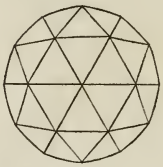
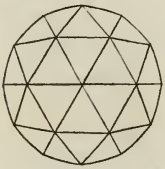
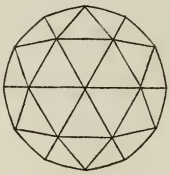
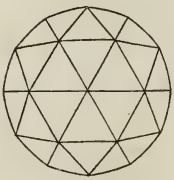


The Sizes of Rose Diamonds.

Number	Weight	Number	Weight	Number	Weight
1	1	13	3 3/4	22	7
2	1 1/8	14	4	23	7 1/2
3	1 1/4	15	4 1/4	24	8
4	1 1/2	16	4 1/2	25	9
5	1 3/4	17	4 3/4	26	10
6	2	18	5	27	11
7	2 1/4	19	5 1/2	28	12 1/2
8	2 1/2	20	6		
9	2 3/4	21	6 1/2		
10	3				
11	3 1/4				
12	3 1/2				

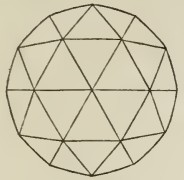
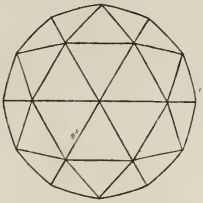
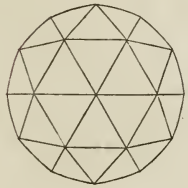
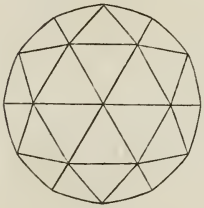
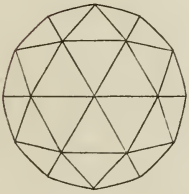
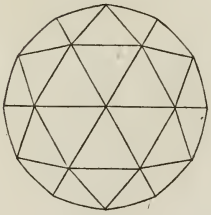
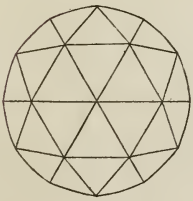
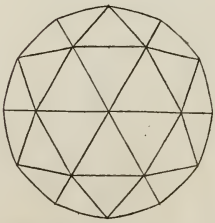
Rose Diamonds.

Number	Weight	Number	Weight
29	14	35	24
30	15½	36	26
31	17	37	28
32	18½	38	30
33	20	39	33
34	22		

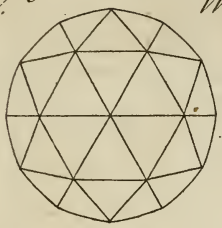
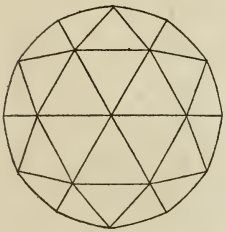
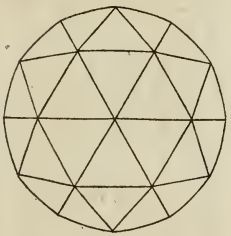
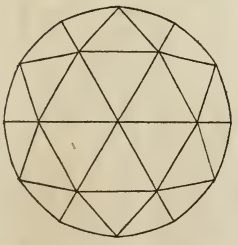











Rose Diamonds.

Number	Weight	Number	Weight
40	36	44	50
41	39	45	54
42	42	46	58
43	46	47	62

Rose Diamonds.

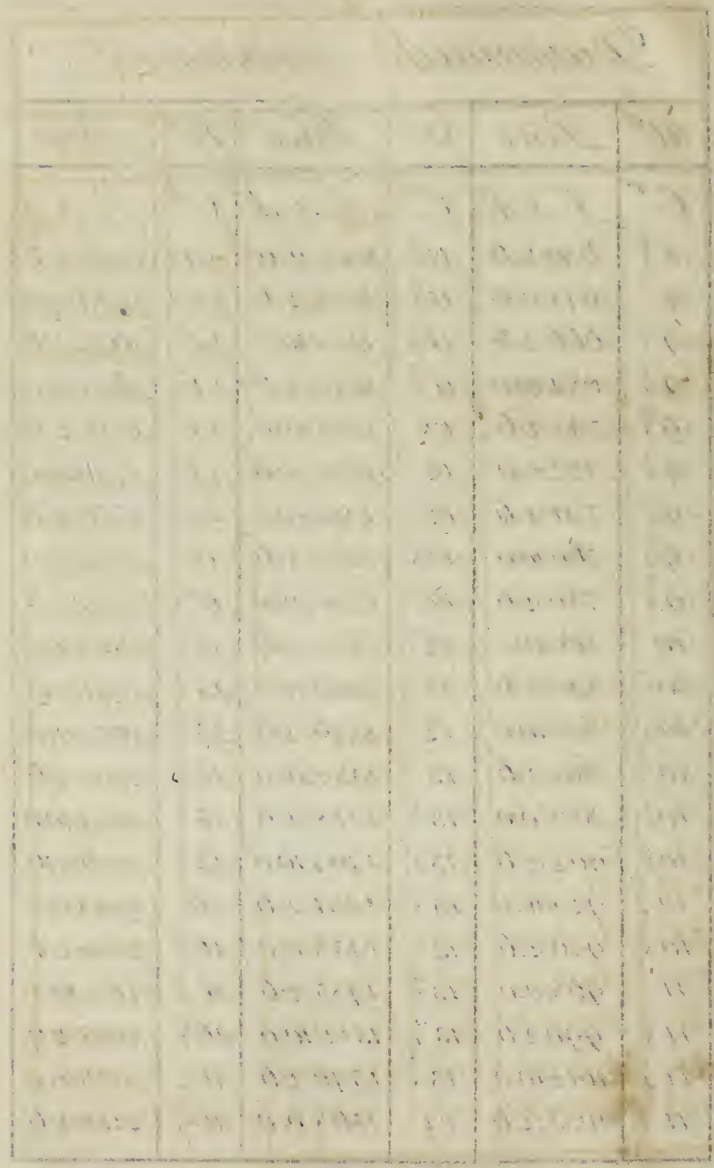
N.o	W.t		N.o	W.t
48	66		52	85
49	70		53	90
50	75		54	95
51	80		55	100

The Tables of Diamonds.

Wt	Price	Wt	Price	Wt	Price
Cr	£ s d	Cr	£ s d	Cr	£ s d
1	8:0:0	3 5/8	105:2:6	6 1/4	312:10:0
1 1/8	10:2:6	3 3/4	112:10:0	6 3/8	325:2:6
1 1/4	12:10:0	3 7/8	120:2:6	6 1/2	338:0:0
1 3/8	15:2:6	4	128:0:0	6 5/8	351:2:6
1 1/2	18:0:0	4 1/8	136:2:6	6 3/4	364:10:0
1 5/8	21:2:6	4 1/4	144:10:0	6 7/8	378:2:6
1 3/4	24:10:0	4 3/8	153:2:6	7	392:0:0
1 7/8	28:2:6	4 1/2	162:0:0	7 1/8	406:2:6
2	32:0:0	4 5/8	171:2:6	7 1/4	420:10:0
2 1/8	36:2:6	4 3/4	180:10:0	7 3/8	435:2:6
2 1/4	40:10:0	4 7/8	190:2:6	7 1/2	450:0:0
2 3/8	45:2:6	5	200:0:0	7 5/8	465:2:6
2 1/2	50:0:0	5 1/8	210:2:6	7 3/4	480:10:0
2 5/8	55:2:6	5 1/4	220:10:0	7 7/8	496:2:6
2 3/4	60:10:0	5 3/8	231:2:6	8	512:0:0
2 7/8	66:2:6	5 1/2	242:0:0	8 1/8	528:2:6
3	72:0:0	5 5/8	253:2:6	8 1/4	544:10:0
3 1/8	78:2:6	5 3/4	264:10:0	8 3/8	561:2:6
3 1/4	84:10:0	5 7/8	276:2:6	8 1/2	578:0:0
3 3/8	91:2:6	6	288:0:0	8 5/8	595:2:6
3 1/2	98:0:0	6 1/8	300:2:6	8 3/4	612:10:0

Diamonds continued

Wt.	Price	Wt.	Price	Wt.	Price
Cr.	£ s d	Cr.	£ s d	Cr.	£ s d
8 7/8	630:2:6	11 1/2	1058:0:0	14 5/8	1596:2:6
9	648:0:0	11 5/8	1081:2:6	14 1/4	1624:10:0
9 1/8	666:2:6	11 3/4	1104:10:0	14 3/8	1653:2:6
9 1/4	684:10:0	11 7/8	1128:2:6	14 1/2	1682:0:0
9 3/8	703:2:6	12	1152:0:0	14 5/8	1711:2:6
9 1/2	722:0:0	12 1/8	1176:2:6	14 3/4	1740:10:0
9 5/8	741:2:6	12 1/4	1200:10:0	14 7/8	1770:2:6
9 3/4	760:10:0	12 3/8	1225:2:6	15	1800:0:0
9 7/8	780:2:6	12 1/2	1250:0:0	15 1/8	1830:2:6
10	800:0:0	12 5/8	1275:2:6	15 1/4	1860:10:0
10 1/8	820:2:6	12 3/4	1300:10:0	15 3/8	1891:2:6
10 1/4	840:10:0	12 7/8	1326:2:6	15 1/2	1922:0:0
10 3/8	861:2:6	13	1352:0:0	15 5/8	1953:2:6
10 1/2	882:0:0	13 1/8	1378:2:6	15 3/4	1984:10:0
10 5/8	903:2:6	13 1/4	1404:10:0	15 7/8	2016:2:6
10 3/4	924:10:0	13 3/8	1431:2:6	16	2048:0:0
10 7/8	946:2:6	13 1/2	1458:0:0	16 1/8	2080:2:6
11	968:0:0	13 5/8	1485:2:6	16 1/4	2112:10:0
11 1/8	990:2:6	13 3/4	1512:10:0	16 3/8	2145:2:6
11 1/4	1012:10:0	13 7/8	1540:2:6	16 1/2	2178:0:0
11 3/8	1035:2:6	14	1568:0:0	16 5/8	2211:2:6



Diamonds continued

Wt.	Price	Wt.	Price	Wt.	Price
C.r	£ s d	C.r	£ s d	C.r	£ s d
16 3/4	2244:10:0	19 3/8	3003:2:6	22	3872:0:0
16 7/8	2278:2:6	19 1/2	3042:0:0	22 1/8	3916:2:6
17	2312:0:0	19 5/8	3081:2:6	22 1/4	3960:10:0
17 1/8	2346:2:6	19 3/4	3120:10:0	22 3/8	4005:2:6
17 1/4	2380:10:0	19 7/8	3160:2:6	22 1/2	4050:0:0
17 3/8	2415:2:6	20	3200:0:0	22 5/8	4095:2:6
17 1/2	2450:0:0	20 1/8	3240:2:6	22 3/4	4140:10:0
17 5/8	2485:2:6	20 1/4	3280:10:0	22 7/8	4186:2:6
17 3/4	2520:10:0	20 3/8	3321:2:6	23	4232:0:0
17 7/8	2556:2:6	20 1/2	3362:0:0	23 1/8	4278:2:6
18	2592:0:0	20 5/8	3403:2:6	23 1/4	4324:10:0
18 1/8	2628:2:6	20 3/4	3444:10:0	23 3/8	4371:2:6
18 1/4	2664:10:0	20 7/8	3486:2:6	23 1/2	4418:0:0
18 3/8	2701:2:6	21	3528:0:0	23 5/8	4465:2:6
18 1/2	2738:0:0	21 1/8	3570:2:6	23 3/4	4512:10:0
18 5/8	2775:2:6	21 1/4	3612:10:0	23 7/8	4560:2:6
18 3/4	2812:10:0	21 3/8	3655:2:6	24	4608:0:0
18 7/8	2850:2:6	21 1/2	3698:0:0	24 1/8	4656:2:6
19	2888:0:0	21 5/8	3741:2:6	24 1/4	4704:10:0
19 1/8	2926:2:6	21 3/4	3784:10:0	24 3/8	4753:2:6
19 1/4	2964:10:0	21 7/8	3828:2:6	24 1/2	4802:0:0

Diamonds continued.

Wt	Price	Wt	Price	Wt	Price
Cr	£ s d	Cr	£ s	Cr	£ s
24 5/8	4851:2:6	29 1/2	6962:0	34 3/4	9660:10
24 3/4	4900:10:0	29 3/4	7080:10	35	9800:0
24 7/8	4950:2:6	30	7200:0	35 1/4	9940:10
25	5000:0:0	30 1/4	7320:10	35 1/2	10082:0
25 1/4	5100:10:0	30 1/2	7442:0	35 3/4	10224:10
25 1/2	5202:0:0	30 3/4	7564:10	36	10368:0
25 3/4	5304:10:0	31	7688:0	36 1/4	10512:10
26	5408:0:0	31 1/4	7812:10	36 1/2	10658:0
26 1/4	5512:10:0	31 1/2	7938:0	36 3/4	10804:10
26 1/2	5618:0:0	31 3/4	8064:10	37	10952:0
26 3/4	5724:10:0	32	8192:0	37 1/4	11100:10
27	5832:0:0	32 1/4	8320:10	37 1/2	11250:0
27 1/4	5940:10:0	32 1/2	8450:0	37 3/4	11400:10
27 1/2	6050:0:0	32 3/4	8580:10	38	11552:0
27 3/4	6160:10:0	33	8712:0	38 1/4	11702:10
28	6272:0:0	33 1/4	8844:10	38 1/2	11858:0
28 1/4	6384:10:0	33 1/2	8978:0	38 3/4	12012:10
28 1/2	6498:0:0	33 3/4	9112:10	39	12168:0
28 3/4	6612:10:0	34	9248:0	39 1/4	12324:10
29	6728:0:0	34 1/4	9384:10	39 1/2	12482:0
29 1/4	6844:10:0	34 1/2	9522:0	39 3/4	12640:10

Diamonds continued

Wt. Cr.	Price £ s	Wt. Cr.	Price £ s	Wt. Cr.	Price £
40	12800:0	45¼	16380:10	51	20808
40¼	12960:10	45½	16562:0	51½	21218
40½	13122:0	45¾	16744:10	52	21632
40¾	13284:10	46	16928:0	52½	22050
41	13448:0	46¼	17112:10	53	22472
41¼	13612:10	46½	17298:0	53½	22898
41½	13778:0	46¾	17484:10	54	23328
41¾	13944:10	47	17672:0	54½	23762
42	14112:0	47¼	17860:10	55	24200
42¼	14280:10	47½	18050:0	55½	24642
42½	14450:0	47¾	18240:10	56	25088
42¾	14620:10	48	18432:0	56½	25538
43	14792:0	48¼	18624:10	57	25992
43¼	14964:10	48½	18818:0	57½	26450
43½	15138:0	48¾	19012:10	58	26912
43¾	15312:10	49	19208:0	58½	21378
44	15488:0	49¼	19404:10	59	27848
44¼	15664:10	49½	19602:0	59½	28322
44½	15842:0	49¾	19800:10	60	28800
44¾	16020:10	50	20000:0	60½	29282
45	16200:0	50½	20402:0	61	29768

Diamonds continued

Wt.	Price	Wt.	Price	Wt.	Price
Cr	£	Cr	£	Cr	£
61½	30258	72	41472	90	64800
62	30752	72½	42050	91	66248
62½	31250	73	42632	92	67712
63	31752	73½	43218	93	69192
63½	32258	74	43808	94	70688
64	32768	74½	44402	95	72200
64½	33282	75	45000	96	73728
65	33800	76	46208	97	75272
65½	34322	77	47432	98	76832
66	34848	78	48672	99	78408
66½	35378	79	49928	100	80000
67	35912	80	51200		
67½	36450	81	52488		
68	36992	82	53792		
68½	37538	83	55112		
69	38088	84	56448		
69½	38642	85	57800		
70	39200	86	59168		
70½	39762	87	60552		
71	40328	88	61952		
71½	40898	89	63368		

The Tables of small Pearl.

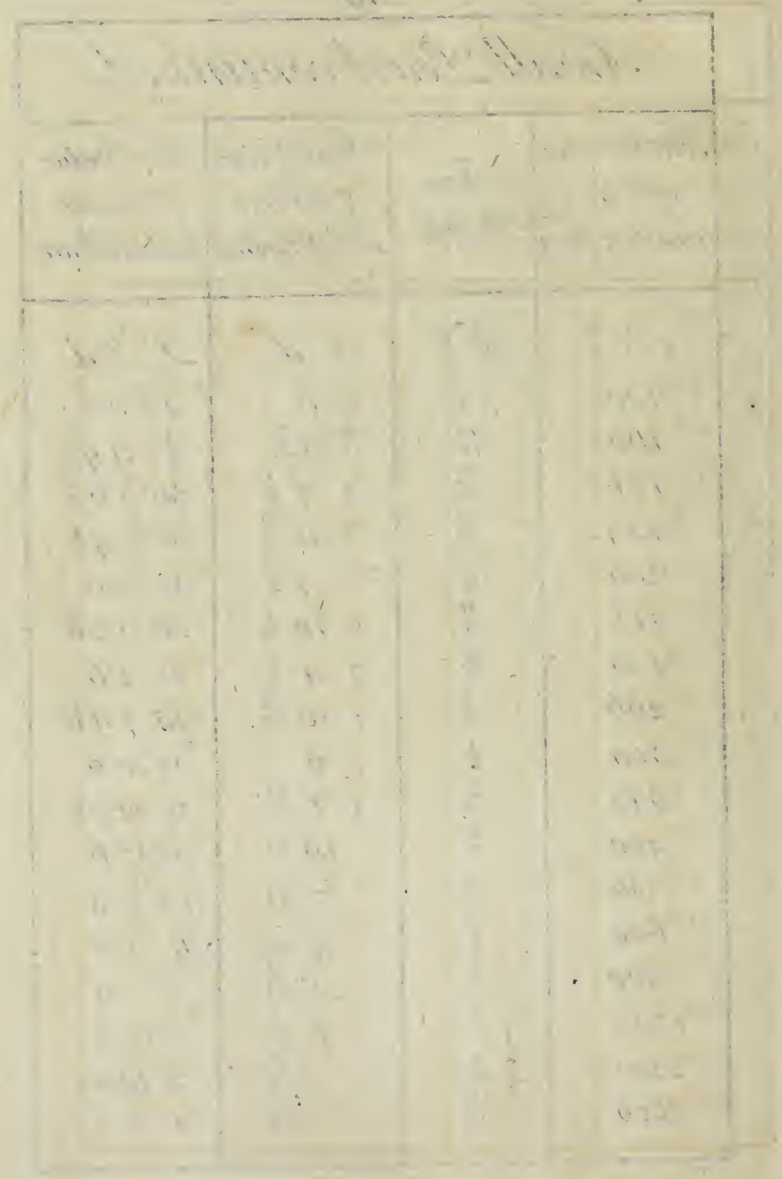
The Number of Pearl in an Oz. Troy	Their Weight	Their Value p. Piece at 3 2 p. Carrat	Their Value p. Ounce at that Rate
N.o	Cr.	s d	£ s d
150	1	2 : 0	15 : 0 : 0
160	15/16	1 : 9 3/32	14 : 1 : 3
171	7/8	1 : 6 3/8	13 : 1 : 10 1/8
184	13/16	1 : 3 27/32	12 : 2 : 11 1/4
200	3/4	1 : 1 1/2	11 : 5 : 0
218	11/16	11 11/32	10 : 6 : 0 15/16
240	5/8	9 3/8	9 : 7 : 6
266	9/16	7 19/32	8 : 8 : 3 15/16
300	1/2	6	7 : 10 : 0
342	7/16	4 19/32	6 : 10 : 11 1/16
400	3/8	3 3/8	5 : 12 : 6
480	5/16	2 11/32	4 : 13 : 9
600	1/4	1 1/2	3 : 15 : 0
800	3/16	27/32	2 : 16 : 3
1200	1/8	3/8	1 : 17 : 6
2400	1/16	3/32	18 : 9
4800	1/32	3/128	9 : 4 1/2

Small Pearl continued

The Number of Pearl in an Oz Troy	Their Weight	Their Value P. Piece at 3/4 P. Carrat	Their Value P. Ounce at that Rate
N.°	Cr.	s d	£ s d
150	1	4 : 0	30 : 0 : 0
160	15/16	3 : 6 3/16	28 : 2 : 6
171	7/8	3 : 0 3/4	26 : 3 : 8 1/4
184	13/16	2 : 7 11/16	24 : 5 : 10 1/2
200	3/4	2 : 3	22 : 10 : 0
218	11/16	1 : 10 11/16	20 : 12 : 1 7/8
240	5/8	1 : 6 3/4	18 : 15 : 0
266	9/16	1 : 3 3/16	16 : 16 : 7 7/8
300	1/2	1 : 0	15 : 0 : 0
342	7/16	9 3/16	13 : 1 : 10 1/8
400	3/8	6 3/4	11 : 5 : 0
480	5/16	4 11/16	9 : 7 : 6
600	1/4	3	7 : 10 : 0
800	3/16	1 11/16	5 : 12 : 6
1200	1/8	3/4	3 : 15 : 0
2400	1/16	3/16	1 : 17 : 6
4800	1/32	3/64	18 : 9

Small Pearl continued

The Number of Pearl in an Oz Troy	Their Weight	Their Value p. Piece at 6 p Carrat	Their Value p. Ounce at that Rate
N.o	Cr.	s d	£ s d
150	1	6:0	45:0:0
160	15/16	5:3 9/32	42:3:9
171	7/8	4:7 1/8	39:5:6 3/8
184	13/16	3:11 17/32	36:8:9 3/4
200	3/4	3:4 1/2	33:15:0
218	11/16	2:10 1/32	30:18:2 13/16
240	5/8	2:4 1/8	28:2:6
266	9/16	1:10 25/32	25:4:11 13/16
300	1/2	1:6	22 10 0
342	7/16	1:1 25/32	19:12:9 3/16
400	3/8	10 1/8	16:17:6
480	5/16	7 1/32	14:1:3
600	1/4	4 1/2	11:5:0
800	3/16	2 17/32	8:8:9
1200	1/8	1 1/8	5:12:6
2400	1/16	9/32	2:16:3
4800	1/32	9/128	1:8:1 1/2

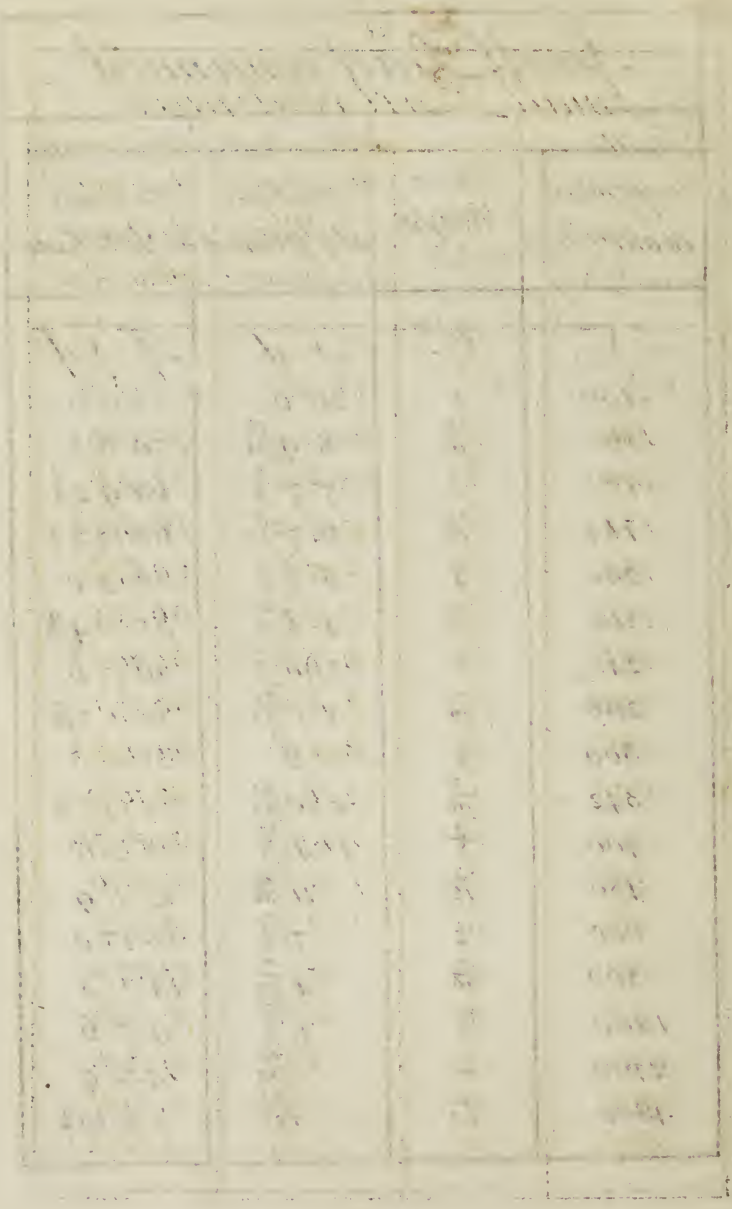


Small Pearl continued

The Number of Pearl in an Oz. Troy	Their Weight	Their Value p. Piece at 8 p. Carrat	Their Value p. Ounce at that Rate
N°	Cr	s d	£ s d
150	1	8 : 0	60 : 0 : 0
160	15/16	7 : 0 3/8	56 : 5 : 0
171	7/8	6 : 1 1/2	52 : 7 : 4 1/2
184	13/16	5 : 3 3/8	48 : 11 : 9
200	3/4	4 : 6	45 : 0 : 0
218	11/16	3 : 9 3/8	41 : 4 : 3 3/4
240	5/8	3 : 1 1/2	37 : 10 : 0
266	9/16	2 : 6 3/8	33 : 13 : 3 3/4
300	1/2	2 : 0	30 : 0 : 0
342	7/16	1 : 6 3/8	26 : 3 : 8 1/4
400	3/8	1 : 1 1/2	22 : 10 : 0
480	5/16	: 9 3/8	18 : 15 : 0
600	1/4	6	15 : 0 : 0
800	3/16	3 3/8	11 : 5 : 0
1200	1/8	1 1/2	7 : 10 : 0
2400	1/16	3/8	3 : 15 : 0
4800	1/32	3/32	1 : 17 : 6

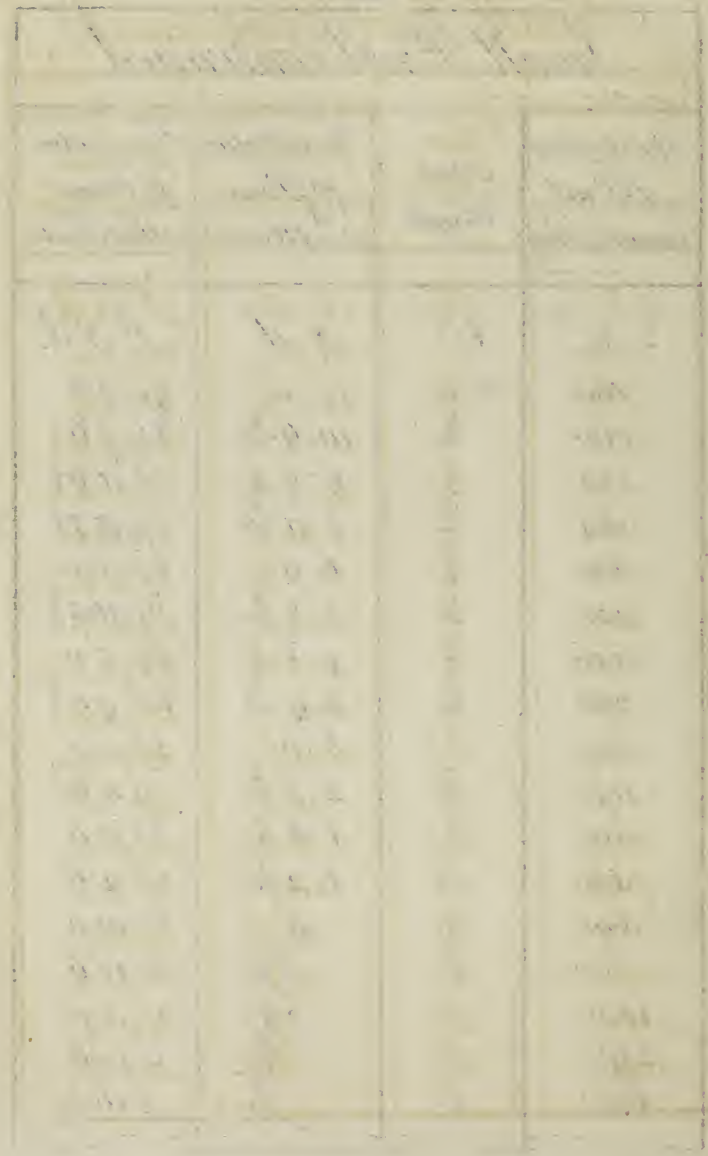
Small Pearl continued

The Number of Pearl in an Oz. Troy	Their Weight	Their Value p. Piece at 16 p. Carrat	Their Value p. Ounce at that Rate
N.°	Cr.	s d	£ s d
150	1	10:0	75:0:0
160	15/16	8:9 15/32	70:6:3
171	7/8	7:7 7/8	65:9:2 5/8
184	13/16	6:7 7/32	60:14:8 1/4
200	3/4	5:7 1/2	56:5:0
218	11/16	4:8 23/32	51:10:4 11/16
240	5/8	3:10 7/8	46:17:6
266	9/16	3:1 31/32	42:1:7 11/16
300	1/2	2:6	37:10:0
342	7/16	1:10 31/32	32:14:7 5/16
400	3/8	1:4 7/8	28:2:6
480	5/16	11 23/32	23:8:9
600	1/4	7 1/2	18:15:0
800	3/16	4 7/32	14:1:3
1200	1/8	1 7/8	9:7:6
2400	1/16	15/32	4:13:9
4800	1/32	15/128	2:6:10 1/2



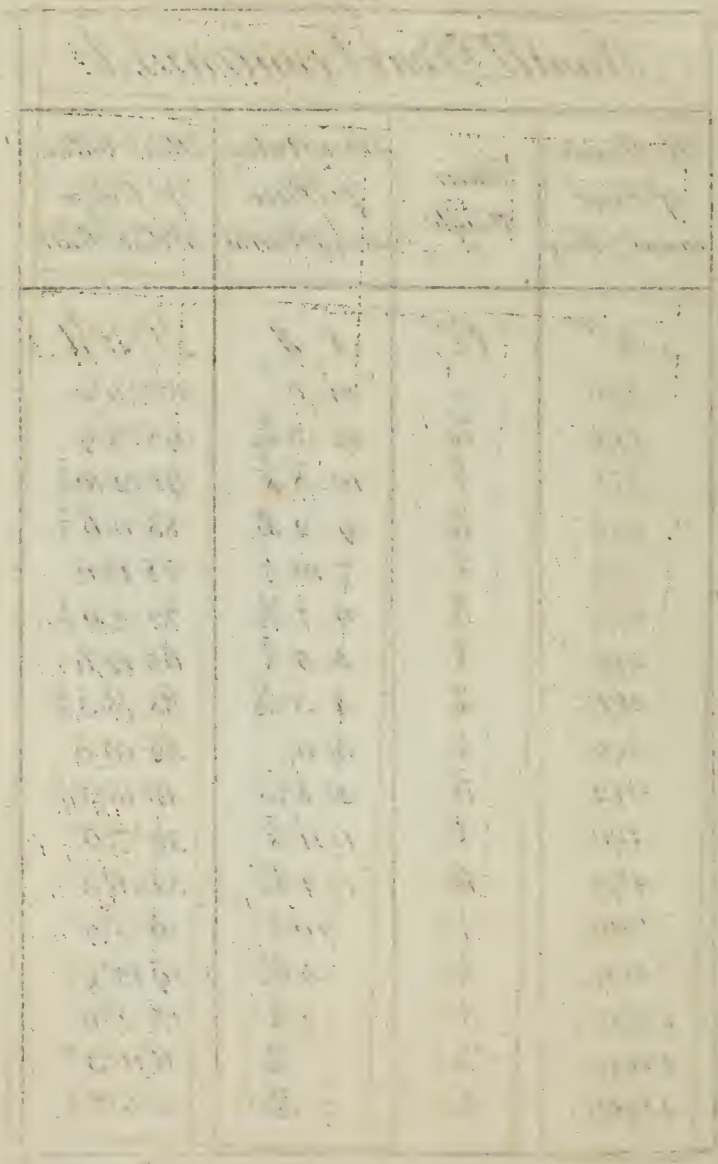
Small Pearl continued

The Number of Pearl in an Oz. Troy	Their Weight	Their Value p. Piece 1 at 12 p Carrat	Their Value p. Ounce at that Rate
N.o	Cr.	s d	£ s d
150	1	12 : 0	90 : 0 : 0
160	15/16	10 : 6 9/16	84 : 7 : 6
171	7/8	9 : 2 1/4	78 : 11 : 0 3/4
184	13/16	7 : 11 1/16	72 : 17 : 7 1/2
200	3/4	6 : 9	67 : 10 : 0
218	11/16	5 : 8 1/16	61 : 16 : 5 5/8
240	5/8	4 : 8 1/4	56 : 5 : 0
266	9/16	3 : 9 9/16	50 : 9 : 11 5/8
300	1/2	3 : 0	45 : 0 : 0
342	7/16	2 : 3 9/16	39 : 5 : 6 3/8
400	3/8	1 : 8 1/4	33 : 15 : 0
480	5/16	1 : 2 1/16	28 : 2 : 6
600	1/4	9	22 : 10 : 0
800	3/16	5 1/16	16 : 17 : 6
1200	1/8	2 1/4	11 : 5 : 0
2400	1/16	9/16	5 : 12 : 6
4800	1/32	9/64	2 : 16 : 3



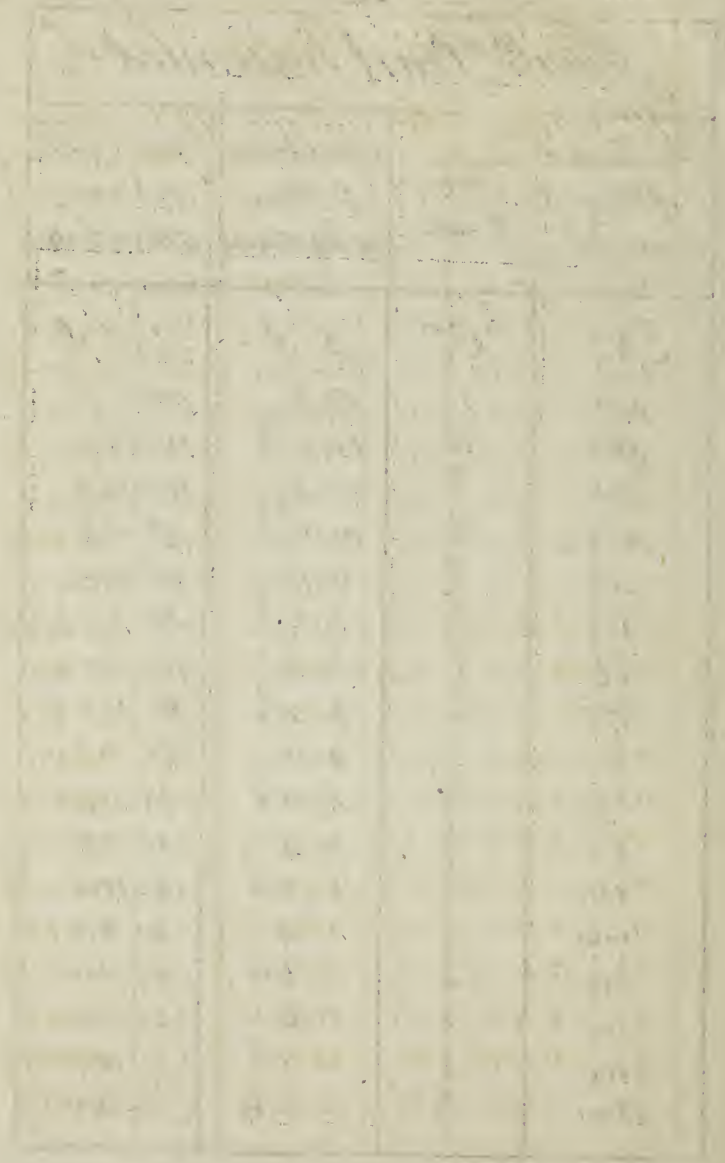
Small Pearl continued

The Number of Pearl in an Oz. Troy	Their Weight	Their Value p. Piece at 14s p. Carrat	Their Value p. Ounce at that Rate
N.o	C.r	s d	£ s d
150	1	14 : 0	105 : 0 : 0
160	$\frac{15}{16}$	12 : 3 $\frac{21}{32}$	98 : 8 : 9
171	$\frac{7}{8}$	10 : 8 $\frac{5}{8}$	91 : 12 : 10 $\frac{7}{8}$
184	$\frac{13}{16}$	9 : 2 $\frac{29}{32}$	85 : 0 : 6 $\frac{3}{4}$
200	$\frac{3}{4}$	7 : 10 $\frac{1}{2}$	78 : 15 : 0
218	$\frac{11}{16}$	6 : 7 $\frac{13}{32}$	72 : 2 : 6 $\frac{9}{16}$
240	$\frac{5}{8}$	5 : 5 $\frac{5}{8}$	65 : 12 : 6
266	$\frac{9}{16}$	4 : 5 $\frac{5}{32}$	58 : 18 : 3 $\frac{9}{16}$
300	$\frac{1}{2}$	3 : 6	52 : 10 : 0
342	$\frac{7}{16}$	2 : 8 $\frac{5}{32}$	45 : 16 : 5 $\frac{1}{16}$
400	$\frac{3}{8}$	1 : 11 $\frac{5}{8}$	39 : 7 : 6
480	$\frac{5}{16}$	1 : 4 $\frac{13}{32}$	32 : 16 : 3
600	$\frac{1}{4}$	10 $\frac{1}{2}$	26 : 5 : 0
800	$\frac{3}{16}$	5 $\frac{29}{32}$	19 : 13 : 9
1200	$\frac{1}{8}$	2 $\frac{5}{8}$	13 : 2 : 6
2400	$\frac{1}{16}$	$\frac{21}{32}$	6 : 11 : 3
4800	$\frac{1}{32}$	$\frac{21}{128}$	3 : 5 : 7 $\frac{1}{2}$



Small Pearl continued

The Number of Pearl in an Oz. Troy	Their Weight	Their Value ℔. Piece at 16 ℔ Carrat	Their Value ℔. Ounce at that Rate
N.°	C.r	l d	£ s d
150	1	16 : 0	120 : 0 : 0
160	15/16	14 : 0 3/4	112 : 10 : 0
171	7/8	12 : 3	104 : 14 : 9
184	13/16	10 : 6 3/4	97 : 3 : 6
200	3/4	9 : 0	90 : 0 : 0
218	11/16	7 : 6 3/4	82 : 8 : 7 1/2
240	5/8	6 : 3	75 : 0 : 0
266	9/16	5 : 0 3/4	67 : 6 : 7 1/2
300	1/2	4 : 0	60 : 0 : 0
342	7/16	3 : 0 3/4	52 : 7 : 4 1/2
400	3/8	2 : 3	45 : 0 : 0
480	5/16	1 : 6 3/4	37 : 10 : 0
600	1/4	1 : 0	30 : 0 : 0
800	3/16	6 3/4	22 : 10 : 0
1200	1/8	3	15 0 : 0
2400	1/16	3/4	7 : 10 : 0
4800	1/32	3/16	3 : 15 : 0



The Tables of large Pearl.

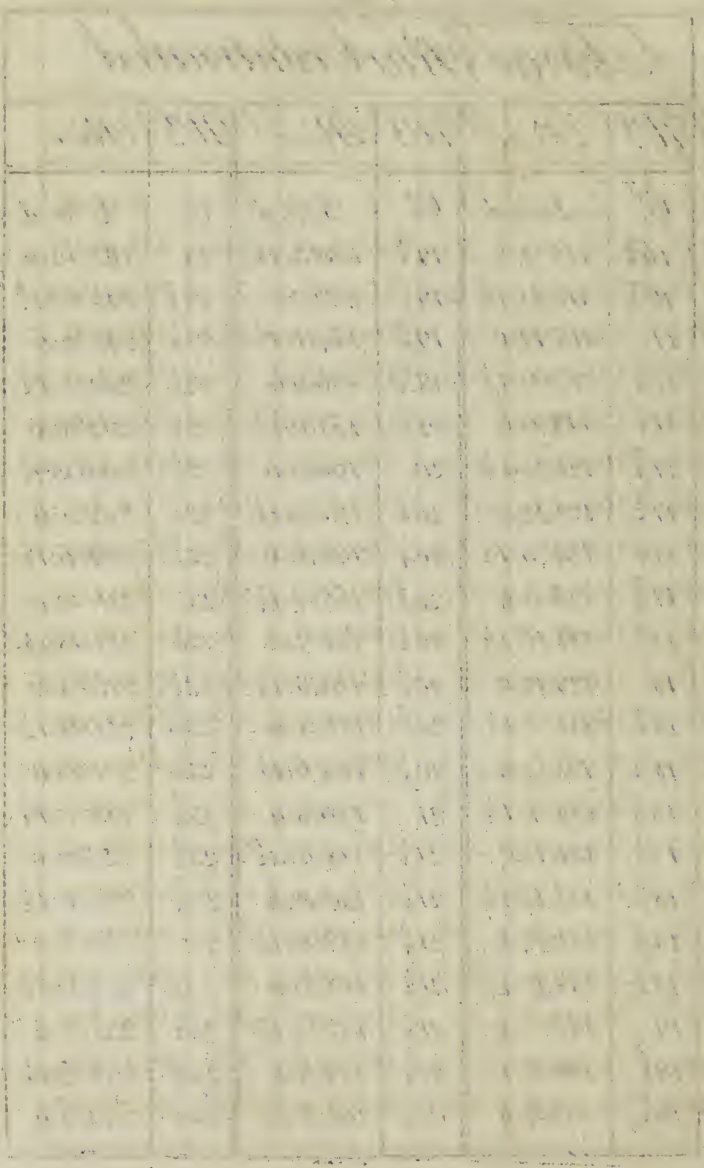
Wt	Price	Wt	Price	Wt	Price
Cr	£ s d	Cr	£ s d	Cr	£ s d
1	8:0	3 5/8	5: 5: 1 1/2	6 1/4	15: 12:6
1 1/8	10: 1 1/2	3 3/4	5:12:6	6 3/8	16: 5: 1 1/2
1 1/4	12: 6	3 7/8	6: 0: 1 1/2	6 1/2	16: 18:0
1 3/8	15: 1 1/2	4	6: 8:0	6 5/8	17: 11: 1 1/2
1 1/2	18:0	4 1/8	6:16: 1 1/2	6 3/4	18: 4:6
1 5/8	1: 1: 1 1/2	4 1/4	7: 4:6	6 7/8	18:18: 1 1/2
1 3/4	1: 4:6	4 3/8	7:13: 1 1/2	7	19:12:0
1 7/8	1: 8: 1 1/2	4 1/2	8: 2:0	7 1/8	20: 6: 1 1/2
2	1:12:0	4 5/8	8:11: 1 1/2	7 1/4	21: 0:6
2 1/8	1:16: 1 1/2	4 3/4	9: 0:6	7 3/8	21:15: 1 1/2
2 1/4	2: 0:6	4 7/8	9:10: 1 1/2	7 1/2	22:10:0
2 3/8	2: 5: 1 1/2	5	10: 0:0	7 5/8	23: 5: 1 1/2
2 1/2	2:10:0	5 1/8	10:10: 1 1/2	7 3/4	24: 0:6
2 5/8	2:15: 1 1/2	5 1/4	11: 0:6	7 7/8	24:16: 1 1/2
2 3/4	3: 0:6	5 3/8	11:11: 1 1/2	8	25:12:0
2 7/8	3: 6: 1 1/2	5 1/2	12: 2:0	8 1/8	26: 8: 1 1/2
3	3:12:0	5 5/8	12:13: 1 1/2	8 1/4	27: 4:6
3 1/8	3:18: 1 1/2	5 3/4	13: 4:6	8 3/8	28: 1: 1 1/2
3 1/4	4: 4:6	5 7/8	13:16: 1 1/2	8 1/2	28:18:0
3 3/8	4:11: 1 1/2	6	14: 8:0	8 5/8	29:15: 1 1/2
3 1/2	4:18:0	6 1/8	15: 0: 1 1/2	8 3/4	30:12:6

Large Pearl continued.

Wt.	Price	Wt.	Price	Wt.	Price
Cr.	£ s d	Cr.	£ s d	Cr.	£ s d
8 7/8	31:10:1½	11½	52:18:0	14⅛	79:16:1½
9	32: 8:0	11⅝	54: 1:1½	14¼	81: 4:6
9⅛	33: 6:1½	11¾	55: 4:6	14⅜	82:13:1½
9¼	34: 4:6	11⅞	56: 8:1½	14½	84: 2:0
9⅜	35: 3:1½	12	57:12:0	14⅝	85:11:1½
9½	36: 2:0	12⅛	58:16:1½	14¾	87: 0:6
9⅝	37: 1:1½	12¼	60: 0:6	14⅞	88:10:1½
9¾	38: 0:6	12⅜	61: 5:1½	15	90: 0:0
9⅞	39: 0:1½	12½	62:10:0	15⅛	91:10:1½
10	40: 0:0	12⅝	63:15:1½	15¼	93: 0:6
10⅛	41: 0:1½	12¾	65: 0:6	15⅜	94:11:1½
10¼	42: 0:6	12⅞	66: 6:1½	15½	96: 2:0
10⅜	43: 1:1½	13	67:12:0	15⅝	97:13:1½
10½	44: 2:0	13⅛	68:18:1½	15¾	99: 4:6
10⅝	45: 3:1½	13¼	70: 4:6	15⅞	100:16:1½
10¾	46: 4:6	13⅜	71:11:1½	16	102: 8:0
10⅞	47: 6:1½	13½	72:18:0	16⅛	104:0:1½
11	48: 8:0	13⅝	74: 5:1½	16¼	105:12:6
11⅛	49:10:1½	13¾	75:12:6	16⅜	107: 5:1½
11¼	50:12:6	13⅞	77: 0:1½	16½	108:18:0
11⅜	51:15:1½	14	78: 8:0	16⅝	110:11:1½

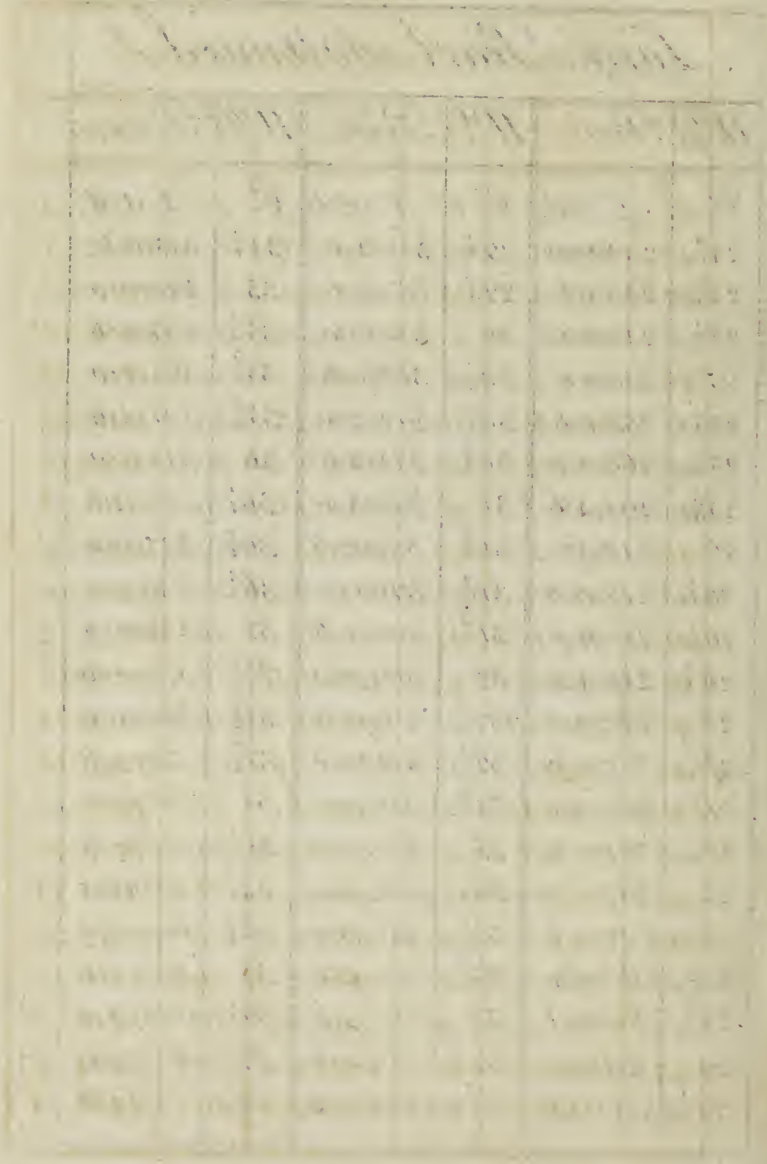
Large Pearl continued.

Wt.	Price	Wt.	Price	Wt.	Price
Cr.	£. s. d.	Cr.	£. s. d.	Cr.	£. s. d.
16 3/4	112:4:6	19 3/8	150:3:1 1/2	22	193:12:0
16 7/8	113:18:1 1/2	19 1/2	152:2:0	22 1/8	195:16:1 1/2
17	115:12:0	19 5/8	154:1:1 1/2	22 1/4	198:0:6
17 1/8	117:6:1 1/2	19 3/4	156:0:6	22 3/8	200:5:1 1/2
17 1/4	119:0:6	19 7/8	158:0:1 1/2	22 1/2	202:10:0
17 3/8	120:15:1 1/2	20	160:0:0	22 5/8	204:15:1 1/2
17 1/2	122:10:0	20 1/8	162:0:1 1/2	22 3/4	207:0:6
17 5/8	124:5:1 1/2	20 1/4	164:0:6	22 7/8	209:6:1 1/2
17 3/4	126:0:6	20 3/8	166:1:1 1/2	23	211:12:0
17 7/8	127:16:1 1/2	20 1/2	168:2:0	23 1/8	213:18:1 1/2
18	129:12:0	20 5/8	170:3:1 1/2	23 1/4	216:4:6
18 1/8	131:8:1 1/2	20 3/4	172:4:6	23 3/8	218:11:1 1/2
18 1/4	133:4:6	20 7/8	174:6:1 1/2	23 1/2	220:18:0
18 3/8	135:1:1 1/2	21	176:8:0	23 5/8	223:5:1 1/2
18 1/2	136:18:0	21 1/8	178:10:1 1/2	23 3/4	225:12:6
18 5/8	138:15:1 1/2	21 1/4	180:12:6	23 7/8	228:0:1 1/2
18 3/4	140:12:6	21 3/8	182:15:1 1/2	24	230:8:0
18 7/8	142:10:1 1/2	21 1/2	184:18:0	24 1/8	232:16:1 1/2
19	144:8:0	21 5/8	187:1:1 1/2	24 1/4	235:4:6
19 1/8	146:6:1 1/2	21 3/4	189:4:6	24 3/8	237:13:1 1/2
19 1/4	148:4:6	21 7/8	191:8:1 1/2	24 1/2	240:2:0



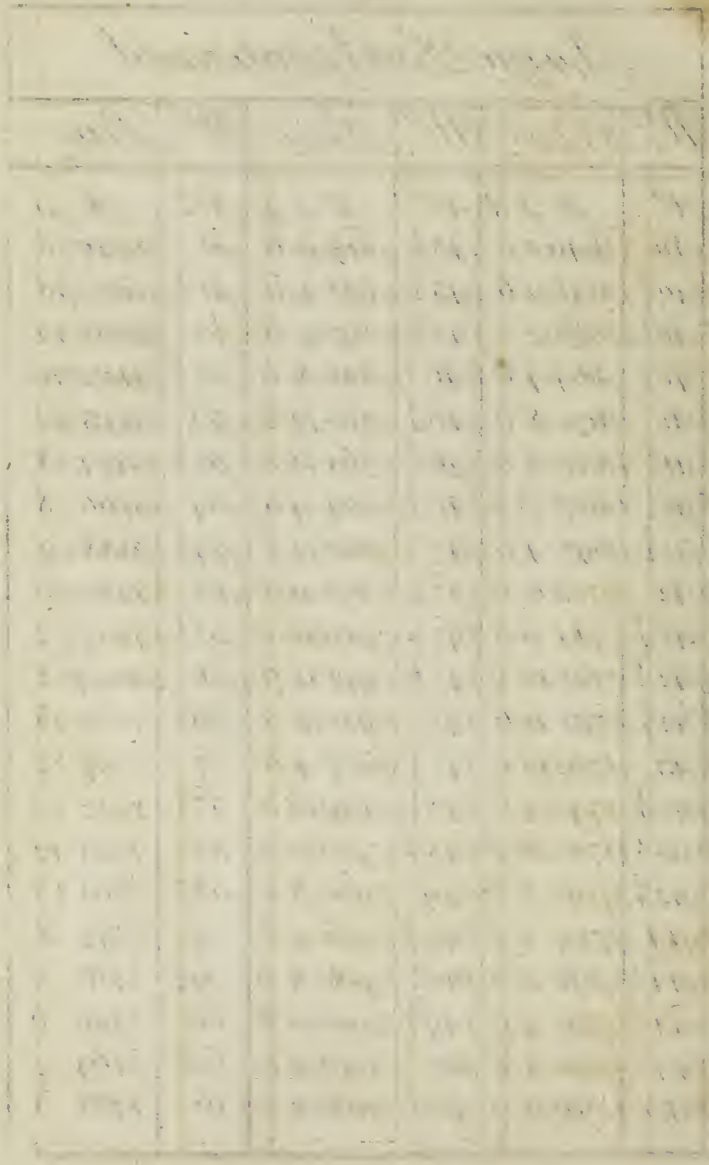
Large Pearl continued.

Wt.	Price	Wt.	Price	Wt.	Price
Cr..	£. S. d.	Cr..	£. S. d.	Cr..	£. S. d.
24 5/8	242:11:1½	29½	348: 2: 0	34¾	483: 0: 6
24¾	245: 0: 6	29¾	354: 0: 6	35	490: 0: 0
24 7/8	247:10:1½	30	360: 0: 0	35¼	497: 0: 6
25	250: 0: 0	30¼	366: 0: 6	35½	504: 2: 0
25¼	255: 0: 6	30½	372: 2: 0	35¾	511: 4: 6
25½	260: 2: 0	30¾	378: 4: 6	36	518: 8: 0
25¾	265: 4: 6	31	384: 8: 0	36¼	525: 2: 6
26	270: 8: 0	31¼	390:12: 6	36½	532:18: 0
26¼	275:12: 6	31½	396:18: 0	36¾	540: 4: 6
26½	280:18: 0	31¾	403: 4: 6	37	547:12: 0
26¾	286: 4: 6	32	409:12: 0	37¼	555: 0: 6
27	291:12: 0	32¼	416: 0: 6	37½	562:10: 0
27¼	297: 0: 6	32½	422:10: 0	37¾	570: 0: 6
27½	302:10: 0	32¾	429: 0: 6	38	577:12: 0
27¾	308: 0: 6	33	435:12: 0	38¼	585: 4: 6
28	313:12: 0	33¼	442: 4: 6	38½	592:18: 0
28¼	319: 4: 6	33½	448:18: 0	38¾	600:12: 6
28½	324:18: 0	33¾	455:12: 6	39	608: 8: 0
28¾	330:12: 6	34	462: 8: 0	39¼	616: 4: 6
29	336: 8: 0	34¼	469: 4: 6	39½	624: 2: 0
29¼	342: 4: 6	34½	476: 2: 0	39¾	632: 0: 6



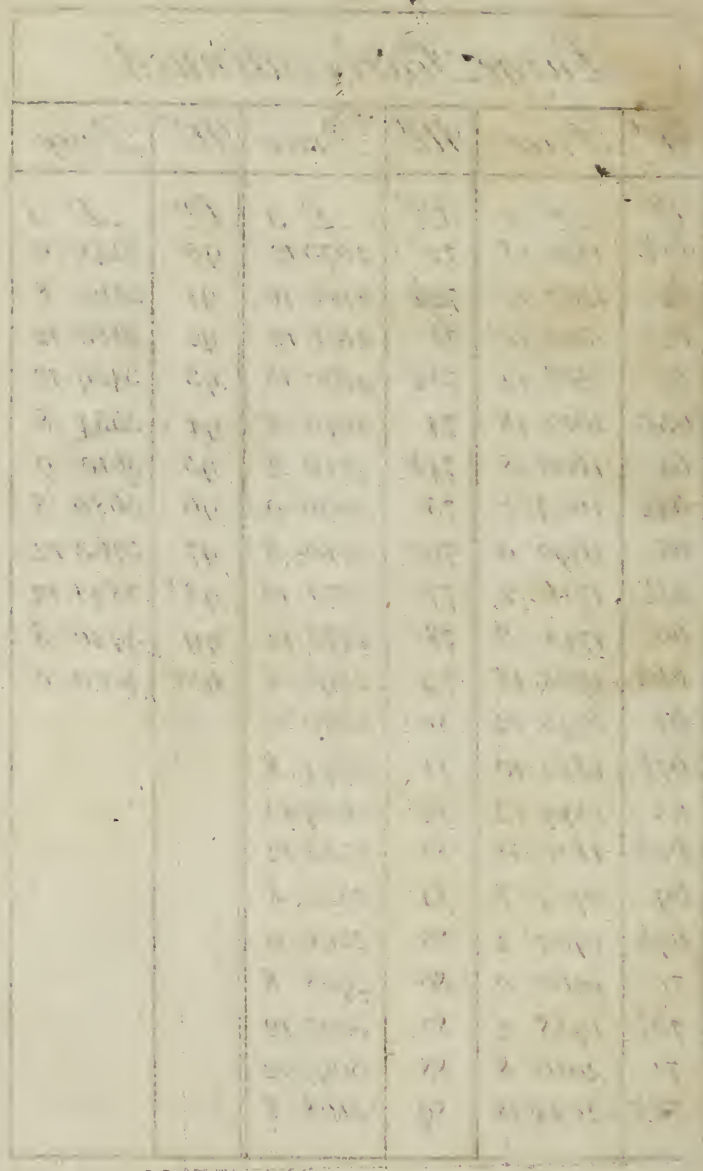
Large Pearl continued

Wt	Price	Wt	Price	Wt	Price
Cr	£ s d	Cr	£ s d	Cr	£ s
40	640:0:0	45¼	819:0:6	51	1040:8
40¼	648:0:6	45½	828:2:0	51½	1060:18
40½	656:2:0	45¾	837:4:6	52	1081:12
40¾	664:4:6	46	846:8:0	52½	1102:10
41	672:8:0	46¼	855:12:6	53	1123:12
41¼	680:12:6	46½	864:18:0	53½	1144:18
41½	688:18:0	46¾	874:4:6	54	1166:8
41¾	697:4:6	47	883:12:0	54½	1188:2
42	705:12:0	47¼	893:0:6	55	1210:0
42¼	714:0:6	47½	902:10:0	55½	1232:2
42½	722:10:0	47¾	912:0:6	56	1254:8
42¾	731:0:6	48	921:12:0	56½	1276:18
43	739:12:0	48¼	931:4:6	57	1299:12
43¼	748:4:6	48½	940:18:0	57½	1322:10
43½	756:18:0	48¾	950:12:6	58	1345:12
43¾	765:12:6	49	960:8:0	58½	1368:18
44	774:8:0	49¼	970:4:6	59	1392:8
44¼	783:4:6	49½	980:2:0	59½	1416:2
44½	792:2:0	49¾	990:0:6	60	1440:0
44¾	801:0:6	50	1000:0:0	60½	1464:2
45	810:0:0	50½	1020:2:0	61	1488:8



Large Pearl continued

Wt	Price	Wt	Price	Wt	Price
Cr.	£ s	Cr.	£ s	Cr.	£ s
61½	1512:18	72	2073:12	90	3240 : 0
62	1537:12	72½	2102:10	91	3312 : 8
62½	1562:10	73	2131:12	92	3385:12
63	1587:12	73½	2160:18	93	3459:12
63½	1612:18	74	2190 : 8	94	3534 : 8
64	1638 : 8	74½	2220 : 2	95	3610 : 0
64½	1664 : 2	75	2250 : 0	96	3686 : 8
65	1690 : 0	76	2310 : 8	97	3763:12
65½	1716 : 2	77	2371 : 12	98	3841:12
66	1742 : 8	78	2433:12	99	3920 : 8
66½	1768:18	79	2496 : 8	100	4000 : 0
67	1795:12	80	2560 : 0		
67½	1822:10	81	2624 : 8		
68	1849:12	82	2689:12		
68½	1876:18	83	2755:12		
69	1904 : 8	84	2822 : 8		
69½	1932 : 2	85	2890 : 0		
70	1960 : 0	86	2958 : 8		
70½	1988 : 2	87	3027:12		
71	2016 : 8	88	3097:12		
71½	2044:18	89	3168 : 8		



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